

NATURE IN BOOKS

A LITERARY INTRODUCTION TO NATURAL SCIENCE

J. LOGIE ROBERTSON

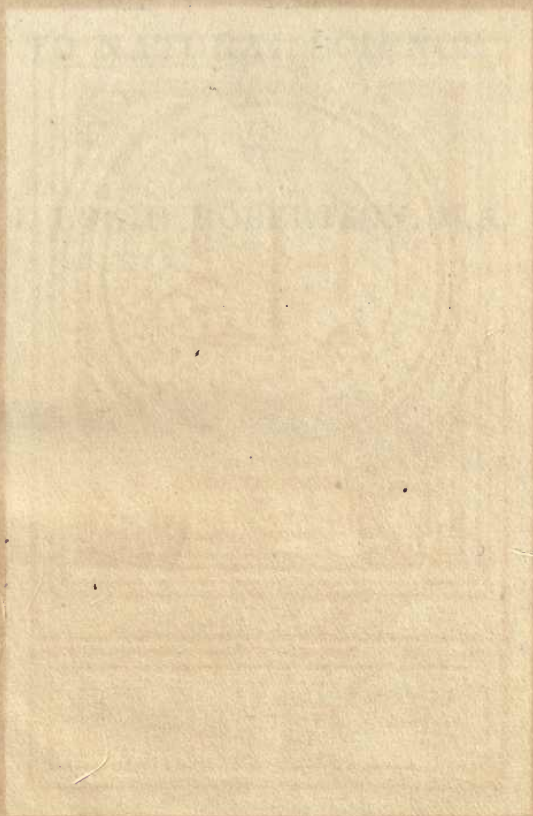
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BY

J. LOGIE ROBERTSON, M.A.



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PREFACE

THE object of the present manual is to attract the young mind to the scientific study of Nature by the presentation of facts in a literary or at least picturesque manner, so that the pupil may of himself make delighted progress as he reads and reflects : he should feel himself in a world of wonder, with his curiosity excited at every step.

The scientific facts are, at first, of less importance than the cultivation of that interest in the phenomena of Nature which all boys and girls should (and most do) feel, and the formation of a habit of intelligent and accurate observation—a habit which is, indeed, less easy to acquire than is commonly supposed, but which involves a discipline scarcely, if at all, inferior to a properly conducted study of the classics.

It is sometimes forgotten that around the study of the aspects and laws of Nature there is a literature which well deserves to be regarded as classical in the best sense of the word. Descriptions of Nature by writers like Shakespeare and Bacon, Wordsworth and Thomson, Izaak Walton and Gilbert White, again and again prove the fact ; and their various testimonies to the abiding power in Nature to interest and elevate the mind have, therefore, been drawn upon in the preparation of the present work.

The Editor's own part in furnishing a portion of the text is mostly confined to the subject of some British birds and plants that have specially interested him and his classes ; and if he has made the study of

plant and bird-life a leading feature of the book, it is because plants and birds are continually in evidence and are naturally attractive to all.

Explanatory Notes, and Exercises, are provided where they are likely to be useful. In regard to the Exercises, it is enough to say they are mere suggestions; their value will be found to lie partly in the test they may afford of the pupil's memory and intelligence, and partly in the scope they allow for the development of his ingenuity and reason. It is not necessary to follow the order of the lessons as given in the book: it is often judicious to leave the choice of lessons to the pupils.

It is the Editor's hope that the book will take many of its readers to 'the open', set them in the way of observing and honouring Nature both when she is shy and when she is magnificently bold, and foster in them such a love for the country in all its aspects as will continue with them throughout the vicissitudes of life. The relationship, once established, will be to their perpetual advantage.

Nature never did betray
The heart that loved her; 'tis her privilege,
Through all the years of this our life to lead
From joy to joy.

Her influence is in three directions: she can inform the mind that is within us, impress it with quietness and beauty, and feed it with lofty thoughts. Her teaching is intellectual, aesthetic, and moral.

J. L. R.

EDINBURGH,
Jan. 1914.

CONTENTS

	PAGE
BRITISH BIRDS: A GENERAL VIEW	7
BRITISH BIRDS: A PARTICULAR REVIEW	17
THE FIRST SOUND EVER HEARD BY HUMAN EAR	28
BACON'S PLAN OF A GARDEN	29
GARDEN VERSES: I. THE FAWN IN THE GARDEN ;	
II. LIFE IN A GARDEN	40
A BUMBLE-BEE'S PARADISE	43
COWPER'S THREE TAME HARES	44
THE HUNTED HARE	53
THE HALCYON, OR KINGFISHER	56
ABOUT BATS	64
ARIEL'S SONG	70
THE SPARROW	71
THE SPARROW'S NEST	79
THE KESTREL AND THE SPARROWHAWK	80
KING KESTREL: A BALLAD OF THE BIRDS	89
THE ECHOES OF SELBORNE	91
JOANNA'S ROCK	95
ECHOES AMONG THE ALPS DURING A THUNDERSTORM	
AT NIGHT	97
THE ECHOES OF KILLARNEY	98
EARTHWORMS: THEIR VALUE TO VEGETATION	99
FLY-FISHING FOR TROUT	101
SHAKESPEARE'S DESCRIPTION OF A HORSE	110
FRAGRANCE: ITS BENEFICIAL EFFECTS	112
FOREST TREES: I. CHAUCER'S; II. SPENSER'S; III.	
COWPER'S	115

	PAGE
A RAIN-STORM IN SUMMER	120
SIGNS OF RAIN	121
A GOOD WORD FOR THE NETTLE	123
THE BROOM-BUSH	128
THE OAK AND THE BROOM: A PASTORAL	134
THE BRAMBLE, OR BLACKBERRY	139
TO THE BRAMBLE	146
CLEAR FROST IN WINTER	147
NATURAL SELECTION	151
EXPLANATION OF SOME BOTANICAL TERMS	152
EPILOGUE	154

BRITISH BIRDS : A GENERAL VIEW

To the lover and student of nature whose main object is the instruction and amusement of his own mind, no better pocket-companions could be recommended than Thomson's *Seasons* and Gilbert White's *Natural History of Selborne*. In the former he will find a delightful guide to the poetry, in the latter a trusty guide to the science of his subject. From both he will catch that sympathy of the heart which is necessary for the successful pursuit of any study, and, while learning from both the secret and the art of observing, he will scarcely know which more to admire—the scientific method of the one or the descriptive charm of the other. Especially is all this true of those eighteenth-century classics when Birds are their more immediate theme.

Somebody has truly said that a love for Thomson is synonymous with a love for nature ; but it is absurdly wrong to say that a good scientist was lost when Thomson devoted himself to poetry. Rather let us say an excellent poet was gained when Thomson gave himself up to the study and enjoyment of nature. For poetry is the last expression of science, philosophy, and indeed of all mental attainment : it is the bright consummate flower of a growth of which they are but the root, the stems, and the leaves. It is interesting to know that, next to the natural influences of his native county, bonny Teviotdale, it was the University of Edinburgh where, when he was a student, natural philosophy was the principal study in the Faculty of

*Two
lovers of
Nature.*

*The
poetry of
Nature.*

Arts, that confirmed the original bent of his mind to the observation and description of the phenomena of external nature. How complete and enduring that bent became is acknowledged in his own prose-preface to *Winter*: 'I know no subject more elevating, more amusing, more ready to awake the poetical enthusiasm, the philosophical reflection, and the moral sentiment than the works of nature: there is no thinking of them without breaking out into poetry.' And his achievement amply justifies the sincerity and the truth of his pronouncement. All the grander and many of the minuter aspects and expressions of nature he has delineated with a force and fidelity simply astonishing. Often with a single word or phrase which has caught the significant characteristic of his subject he flashes upon our imagination a whole vast and varied scene.

Thomson's
Spring a
Bird-book
of poetry.

In dealing with animate nature Thomson, like Gilbert White, gives the foremost place to the beauty and mystery of bird-life. Little short of the half of his poem on *Spring* is devoted to this one theme. It may almost be regarded as the Bird-book of poetry. Chaucer's *Parliament of Fowls* is its only rival.

The song
of the
birds.

Thomson's general references to birds may be considered first. They are variously designated in the mass (as was the poetical fashion of his age) 'the plummy people', 'the gentle tenants of the shade', 'the gay troops', 'the glossy kind', 'Nature's quiriters', 'our brothers of the grove', 'the feathered race', 'the wanderers of heaven', &c. It is their singing that first engages his attention. He hears before he sees them, and is charmed. They sing concealed amid a full luxuriance of leaves and blossoms.

With ten thousand throats they 'carol from the flowering thorn' their sense of the joy of living. As a boy-angler on a spring morning, with a long day before him and Jed-Water at his feet, he is ever and again drawn from his pastime to listen to their concert: the whole woodland seems to be warbling around him. He dreams, as he stands, of what it
70 must have been in the Golden Age

When music held the world in perfect peace.

He next notices their usefulness to man—to the *Their usefulness.* gardener and the farmer—in destroying those insect armies which, though individually a feeble race, are capable by their numbers of blighting the promise of the spring and 'killing the year'. He is no wise fruit-grower who, in the season of bud and blossom, scares the little trooping birds from his orchard. And well may they in winter, 'tamed by the cruel
80 season', present themselves at the barndoor when winnowing is in operation, and claim the little boon of grains 'which Providence assigns them'.

But their fits of silence are scarcely less noticeable *Their fits of silence.* than their singing. It is not alone as winter comes on, when they sit apart mutely shivering in the tawny copse, or gathered together in sympathetic community of misery on some dead tree, that these lapses into silence occur. Even in summer a sudden silence occasionally seems to seize them. It is a significant
90 silence, predictive to the thoughtful observer of a downpour. They sit preening their feathers, or rather streaking their wings with oil, as if expecting the coming deluge, and making preparation

To throw the lucid moisture trickling off.

Some of them revel in it as it falls, fluttering in the troubled air or skimming round the dimply pool in evident enjoyment. As soon as the rain is over, and the splendours of sun and rainbow light up the freshened landscape till it laughs again, they will break their silence, and join their richest notes in ¹⁰⁰ unison with the wild concert of brooks and winds, bleatings on the hillside, and

Hollow lows responsive from the vale.

A deeper silence seizes them in the long drought of a hot summer. The heat afflicts them; they droop, deep in the thicket. The awful stillness of the wood may now and again be broken by a querulous note, suppressed as soon as uttered. But the song-birds, generally, are too depressed to sing or even to fly. They are mute and motionless. Yet this is the time when the ¹¹⁰ cooing of the stockdove is certain to be heard, sounding hoarse and mournful from among muffling trees, and when the eagle boldly soars out and upwards 'through the flood of day',

And, giving full his bosom to the blaze,
Gains on the sun.

*The
mating
season.*

Very properly a large part of the poem is devoted to the courtship of the birds, and the manners and customs of the mating season. The males have donned their sheeniest attire—they are all brave wooers. The ¹²⁰ females, conscious of their charms, affect a regardless air which only inflames their admirers. Nest-building is no less worthily dwelt upon. The site has to be chosen, the materials collected and constructed into a habitation which will answer the purposes of the builders. Here Thomson is particularly happy in his

description. He reveals a knowledge of nests, derived *The nests of birds.* from eye- and ear-observation in boyhood, which any young naturalist might envy and must respect. In
 130 the matter of locality he points out the preference of ten or twelve different species or varieties of birds without naming a single one :

Some to the holly hedge
 Nestling repair ; and to the thicket some.
 Some to the rude protection of the thorn
 Commit their feeble offspring. The cleft tree
 Offers its kind concealment to a few,
 Their food its insects and its moss their nests.
 Others apart, far in the grassy dale,
 140 Or roughening waste, their humble texture weave.
 But most in woodland solitudes delight,
 In unfrequented glooms, or shaggy banks
 Steep and divided by a babbling brook
 Whose murmurs soothe them.

In these ten or twelve lines there is allusion, without specified reference, to as many different birds—to such birds, for example, as blackbirds and thrushes, chaffinches and yellow-hammers, starlings and woodpeckers, larks, lapwings, robins and wrens, kingfishers and
 150 dippers or water-ouzes, respectively. Thomson also gives instances of adventure on the part of mated birds in procuring the last luxurious furnishings of a cosy nest—hair and wool, plucked from the backs of cattle and sheep quietly grazing in the fields; and at least one instance of audacity in the abstraction from some barn of a long golden oat-straw, conveyed as a great prize with unusual haste, and almost with a sense of heroic theft in the transaction, to the growing structure, till, after many such exciting exploits,
 160 ‘ soft and warm, clean and complete ’ the birdhouse is

finished and the owners may occupy it with satisfaction. Then follows an account of patient incubation and hatching of eggs, and busy feeding and rearing of young birds. The means which some parent birds employ to mislead boys and dogs (or, to be accurate, 'swains and spaniels') away from their treasure are happily described as a 'pious fraud':

170

Should some rude foot
 Their woody haunts molest, with stealthy wing
 Amid a neighbouring bush they silent drop,
 And whirring thence, as if alarmed, deceive
 The unfeeling schoolboy. Hence, around the head
 Of wandering swain the white-winged plover wheels
 Her sounding flight, and then directly on
 In long excursion skims the level lawn
 To tempt him from her nest. The wild duck, hence,
 O'er the rough moss, and o'er the trackless waste
 The heath-hen flutters (pious fraud!) to lead
 The hot pursuing spaniel far astray.

*Teaching
 the young
 to fly.*

At last comes the education of the fledgelings in 180
 the art of flight and the manner of self-maintenance,
 until, having made conquest of the air, they are
 directed, gently but firmly, to settlements beyond the
 parental area and influence. It is the same with all
 birds that have to do for themselves, alike song-birds
 and birds of prey. The bird of prey, whether eagle
 or raven, as soon as his young are severally fit to raise
 a kingdom or a household of their own, drives them
 from his own craggy fortress. Even the gentle song-
 bird is equally insistent on the departure of his 190
 progeny as soon as they can manage for themselves:

The acquitted parents see their soaring race,
 And, once rejoicing, never know them more.

If they afterwards meet, it is as rivals; old acquaintance and relationship are forgotten; and even deadly battle may ensue.

On two or three other points in his general references to bird-phenomena Thomson has something to say that is well worth reading. One is their annual mi- *Change of weather foretold by birds.*

200 grations, in spring and again in autumn; another is their lesser movements, while resident, considered as omens of imminent weather. As tenants of the sky (or 'commoners of air', as Burns has called them) birds furnish the best prognostic of the weather that we can have. *They*, chiefly, 'speak its changes', forewarning us by their abnormal behaviour of what is coming, if we would but look, listen, and study their monitory signals. This one wheels from the deep and screams along the land; that other shrieks
210 and soars; a third cleaves the flaky clouds with wildly circling wing: these are cormorants, herons, and seagulls, shaken from their usual routine by an apprehension of approaching storm. Country children know what weather to expect when they see the white wings of straggling seamews flashing far inland from their native haunts: they pause in their play to shout to them the traditional rhyme—

Sea-mew, sea-mew, sink in the sand;

It's never good weather when you're upon land!

220 Even rooks and owls are as reliable as a barometer, once you have learned to read them.

Of the larger movements of birds, it is the autumn *The migration of birds.* migration, as being the more noticeable—the more simultaneous and picturesque—that wins Thomson's attention. He watches their gatherings, their de-

liberations, their preliminary practice for the long, pathless journey; their sudden swift departure at last, in a majestic figured flight that rides the upper air in unbroken perspective on and on to the utmost verge of the far-off horizon. These are inland birds, like the 230 swift and the swallow (and the stork, now a rare visitor to our shores); but who can recount the trans-migrations that enliven the rocky coast? Among the naked, melancholy isles of Orkney, and along the storm-battered line of the Hebrides, what nations of birds come and go! They rise in infinite numbers, in living clouds upon clouds, clothing the isle of Skye as with wings, darkening the air for hours and for days, and making human speech inaudible with their clamour! 240

Grouse
and
partridge
shooting—
Thomson
no sports-
man.

Thomson was a humane poet, and had no sympathy with the sportsman bird-shooting in August or September on the moor or among the stubble. He has a picture in one of *The Seasons* of a pointer 'with open nose drawing full on the latent prey'; of the covey, with varied plumes huddled together, and turning a vigilant eye every way through the rough stubble; of the sudden leap of the birds for safety into the boundless air; and of the gun,

Glanced just, and sudden, from the fowler's eye, 250
bringing them dead to the ground, or driving them,
'wounded and wheeling devious', down the wind.
But he has no delight in the sport. His was a peace-
ful Muse,—

Then most delighted when she social saw
The whole mixed animal-creation round
Alive and happy.

With her, like Burns at a later date, he would much rather

260 stray his gladsome way,
 And view the charms of nature,—
 The rustling corn, the fruited thorn,
 And every happy creature.

Thus far I have briefly considered Thomson's chief general references to the mystery, and scenic and social loveliness, of bird-life in our island. But he has numerous particular descriptions or flying sketches of individual birds which are even more interesting from the poetical standpoint, and are astonishingly 270 correct and minute in their scientific details. He mentions by name at least thirty-five distinct and separate varieties of birds—song-birds, migratory birds, wildfowl and domestic fowls, and birds of prey; and there are perhaps only two points on which a modern naturalist, with the advantage of two centuries of observation over the poet, would appreciably differ from him—the hibernation of the swallow and the booming of the bittern. Even here he is by no means dogmatic—not more so than Gilbert White.

EDITOR.

NOTES

LINE 4. *Thomson's Seasons*. A collection of four poems, describing in blank verse the various appearances of nature in Spring, Summer, Autumn, and Winter respectively; first published in 1730, the author, a Scottish poet born in Roxburghshire, being then in his thirtieth year. The whole poem was, however, written in England—first Winter, then Summer, next Spring, and Autumn (accompanied by a Hymn) last of all.

Thomson was also the author of *The Castle of Indolence*; and the national anthem of *Rule, Britannia* was probably his too.

5. *Gilbert White's Natural History of Selborne.* A series of 44 letters addressed to Thomas Pennant, Esq., and of 66 addressed to the Hon. Daines Barrington, gentlemen of means and leisure, and of congenial tastes with the writer, who was six or seven years older than his correspondents. The writer, Gilbert White, was born at *The Wakes*, an ivied house in the village of Selborne, in 1720. He graduated M.A. at Oriel College, Oxford, in 1746; took Holy Orders the year after; became rector of his native parish of Selborne, where he lived the greater part of his life, performing the light clerical duties of his office, and finding ample time for the study of nature; and died, in the house in which he was born, in 1793. His book on the natural history of Selborne is a classic which has made the parish of Selborne more widely known than any other parish in Great Britain. 'Open the book where you will', says Russell Lowell, 'it takes you out of doors. . . . In simplicity of taste and natural refinement it reminds one of Walton; in tenderness toward "the brute creation", of Cowper. . . . His book has the delightfulness of absolute leisure. It is the journal of Adam in Paradise' ('My Garden Acquaintance,' in *My Study Windows*).—The parish of Selborne is in the extreme eastern corner of Hampshire, about 12 square miles in area, finely diversified by hill, dale, woodlands, heath, and water. It borders on Sussex near where that county borders on Surrey. The high part is in the south-west, and consists of 'a vast hill of chalk, rising 300 ft. above the village, and divided into a sheep down, a high wood, and a long hanging wood called the Hanger'. [See Letter 1 to Mr. Pennant.] The village in White's time contained about 700 inhabitants.

34. *more amusing.* We should now say 'more entertaining or interesting'.

43. *with a single word.* E. gr., 'A shoreless ocean tumbles round the globe.'

203. *commoners of air.* See Burns's *Epistle to Davie*,—'What tho' like commoners of air,' &c.

278. *by no means dogmatic—not more so than Gilbert White.* See p. 21.

EXERCISES

1. Mention six or eight wild birds well known to you, and describe their usual nesting sites and nest structures.
2. What can you say for and against the shooting of grouse, partridges, &c. Discuss the question of 'sport'.
3. Do birds hibernate? What creatures hibernate? and Why?
4. Give an account of the village, or parish, of Selborne.

BRITISH BIRDS: A PARTICULAR REVIEW

THOMSON'S descriptions of extended scenes and general effects in his study of nature are adequate and sufficing. But, while his mind (as Johnson has said) 'comprehended the vast', it could also 'attend to the minute'. A large part of the entertainment of *The Seasons* consists of what one might call Nature Notes; and these are given in vivid detail, usually with an accuracy which not even Tennyson has excelled, sometimes with a minuteness almost photographic.

10 Certainly, in his delineation of individual birds, he presents the characteristic features, whether of figure or of habit, wanting which the picture would be without its principal charm: he furnishes the means of a rapid and perfect identification. He writes, in a word, with his eye on the object.

No passage, I think, illustrates this peculiarity of *The Robin's* his so well as do the ten or twelve lines which present *visit.*
the redbreast helping himself to the table-crums:

One alone,

20 The redbreast, sacred to the household gods,
Wisely regardful of the embroiling sky,

In joyless fields and thorny thickets leaves
 His shivering mates, and pays to trusted man
 His annual visit. Half-afraid, he first
 Against the window beats; then, brisk, alights
 On the warm hearth; then, hopping o'er the floor,
 Eyes all the smiling family askance,
 And pecks, and starts, and wonders where he is;
 Till, more familiar grown, the table-crumbs
 Attract his slender feet.

30

Let me call attention to those touches which, though simply expressed, are creative of the scene. There is first the tiny visitor's timid announcement of his presence at the window of the manse parlour,—his ruddy breast showing dimly through the frosted pane; followed by some assurance in the brisk entrance, when the window opens to let him in; then the full watchful eye, glancing askance at the amused family seated round the breakfast table; then the atmosphere of wonder which environs the little creature as it 40 looks nervously about (pecking and starting) in its new and comfortable quarters; and, finally, the climax of a familiarity which at last directs the bird's way to the table-crumbs (—as the poet finely puts it, 'the table-crumbs attract his slender feet'). The realism of the scene depends very much on the words 'askance' and 'slender'.

*The
 Nightin-
 gale.*

Besides the robin, Thomson particularly refers to six other British song-birds, all well known to most of us,—the lark, the thrush, the nightingale, the bull- 50 finch, the blackbird, and the linnet. Of these the nightingale is his first favourite. He became acquainted with it near London; he could never have seen or heard it in Scotland. To him its song was

The mazy-running soul of melody.

Its music, the sweetest of all sweet natural, non-human sounds whatever, makes the bird much sought after by fanciers, but it is the last of our songsters of the wild that Thomson would have wished to see in a cage. To him it was infinitely preferable in the bush. William Blake imagined that

A robin-redbreast in a cage
Put all Heaven in a rage:

a nightingale in confinement filled the heart of Thomson with sorrow. He has a picture of the empty nest (from which the fledgelings have been stolen) and of the anguish of the mother bird at the discovery of her loss:

Returning with her loaded bill,

70 The astonished mother finds a vacant nest,
By the hard hand of unrelenting clowns
Robbed! To the ground the vain provision falls;
Her pinions ruffle, and, low-drooping, scarce
Can bear the mourner to the poplar shade,
Where, all abandoned to despair, she sings
Her sorrows through the night, and, on the bough
Sole-sitting, still at every dying fall
Takes up again her lamentable strain
Of winding woe.

80 It is her gift of song that recommends the nightingale to his sympathy. Song is more than form or feathers. The gay plumage of tropical birds was less attractive than the sober-suited songstress trilling her sorrow to the listening night. With a poet's courtesy to the sex, Thomson (like Milton, among others) gives the superiority in song to the female, but, as a matter of scientific fact, it is the male nightingale that is the better singer.

The Lark. Next, perhaps, in the rank of song-birds, at least in our country, comes the lark, of whom Shakespeare and 90 Shelley and Wordsworth and the Ettrick Shepherd have sung in strains which should be familiar to every one. Thomson also, though not in lyrical rapture, celebrates the lark : he recurs to it again and again. It is the bird of the grassy wilderness and the soaring sky. Blithesome and cumberless, it ascends to Heaven's gate, ever singing as it soars in a flight almost vertical. It is the merry lark, the ploughman's clock ; cheering him also at his work,—and his lusty steers as well, as they pull the shining share up and down long stretches 100 of monotonous lea the livelong day. It is the most alert of all birds of a summer morning, heard even in the early starlit darkness anticipating and announcing the grey-breaking dawn. It is the shrillness of its voice that takes the ear, its strain a continuous line of silver melody.

The Thrush.

The note of the thrush is quite different, as are also its habitat and its habits and style. Perched on the topmost twig of a dewy bush on a spring morning, it uplifts a triumphant voice, like the voice of a solo- 110 singer, above the chorus of indistinguishable or less distinguished singers distributed about the copse. The whistle of the blackbird, the mellow fluting of the bullfinch, the piping of innumerable linnets are its orchestral supporters.

Migratory birds—

Then there are the swallow and the cuckoo, which, however, though entitled to a place within the charming circle of song-birds, are best known as migrants that come in the spring and go with departing summer. There is further the migratory cornerake, 120 whose harsh grating, though persistently self-recom-

mended, cannot by any indulgence be considered musical;—yet it is pleasantly associated with ‘the sweet o’ the year’. These three birds are all in Thomson’s note-book. It is the flight of the swallow, *The Swallow.* its unresting industry, that takes his eye: he stands to watch it as it ‘sweeps the slimy pool, to build its hanging house intent’; but it is the mysterious disappearance of the bird in the hinder end of harvest that engages his mind. There are the two theories, hibernation and migration, to explain this disappearance. Thomson is acquainted with both. If hibernation be the correct theory, he accounts for their congregated play in the air among the parting gleams of autumn as a kind of carnival before Lent—

Ere to their wintry slumbers they retire,
In clusters hung, beneath the mouldering bank,
And where, unpierced by frost, the cavern sweats;

but he inclines rather to the theory of migration, which
140 conveys the swallow people, ‘with other kindred birds of season,’ into warmer climes where they enjoy the pleasures of active life, and

Twitter cheerful till the vernal months
Invite them welcome back.

He is thus even more advanced in his scientific knowledge of the subject than Gilbert White, who held the opinion, a generation after Thomson’s death, that ‘though most of the swallow kind may migrate, yet some do stay behind and hide with us during the
150 winter’.

Thomson’s one remark about the cuckoo is on its *The Cuckoo.* hollow note, the sound of which (as of a horn faintly blown from Elfland) is one of the signs that spring has

*The
Corn-
crake.*

come (*not* is coming—for the bird is not the messenger but the attendant of the spring), and may therefore be, correctly enough, regarded as the first in the symphony of that ever welcome season. He has more to say of the corncrake, or landrail,—which he introduces at evening, not on its first arrival, in the middle or towards the end of April, along with the cuckoo and the nightingale, but in midsummer, when the green corn is well grown, and as a shadowy gust of moist warm wind sweeps over the waving field. He does not present its figure—which few have seen: it therefore remains invisible in his verse; but the note is well described as a clamouring call, and his theory of its cry is one with which no naturalist will find fault, for it is the right one. He names the bird, indeed, the quail, but he means the corncrake, and he describes it as ‘clamouring for its running mate’. The scene in the midst of which he places it is a charming presentation of summer gloaming. 160

Poultry.

There is a curious little passage in the poem of Spring, devoted to what are commonly called our domestic fowls, and including cock, hen, duck, swan, turkey, peacock, and pigeon. These are still at the home-farm of any well-appointed country-seat the familiar representatives of our ‘tame villatic fowl’. Here Thomson hits off the picturesque peculiarity of each bird with artistic skill, dwelling most elaborately on the cock, the swan, and the pigeon. The whole scene is better than a painted picture, because it is full of life and movement. He depicts it more adequately than greater poets have done. Milton’s chanticler, 180

to the stack or the barn-door,
Stoutly struts his dames before;

Thomson's is a more refined gallant, *sans peur*, with a breast flaming with chivalrous ardour, walking gracefully and crowing defiantly. His swan, like
 190 Milton's, has oary feet, but it also suggests to his imagination the magnificent moving spectacle of a three-masted merchant ship crowding all sail before a favouring breeze. His pigeons are as live and as lovely as Tennyson's, whose beautiful description he anticipates, of 'a livelier iris changing on the burnished dove'. But the passage is short enough to be quoted :

The careful hen

Calls all her chirping family around,
 Fed and defended by the fearless cock,
 200 Whose breast with ardour flames, as on he walks
 Graceful, and crows defiance. In the pond
 The finely chequered duck before her train
 Rows garrulous. The stately-sailing swan
 Gives out his snowy plumage to the gale,
 And, arching proud his neck, with oary feet
 Bears forward fierce, and guards his osier-isle,
 Protective of his young. The turkey nigh,
 Loud-threatening, reddens; while the peacock spreads
 His every-coloured glory to the sun,
 210 And swims in radiant majesty along.
 O'er the whole homely scene the cooing dove
 Flies thick in amorous chase, and wanton rolls
 The glancing eye, and turns the changeful neck.

It would almost seem that Thomson is half inclined *Rooks.* to include rooks and sparrows among domesticated birds. They are certainly birds which by their neighbourhood have grown familiar with man. He is much interested in rookeries, noting the rooks' preference for the site of their airy city—high among the boughs of
 220 lofty elms and grey-grown venerable oaks ; and finding much amusement in their polity and noisy parliaments.

Their harsh notes, discordant when heard alone, are not unpleasing in the full concert of spring. He observes their weary, lazy manner of flying; and in one brief passage at once recalls Shakespeare and anticipates Burns, both of whom, like himself, had intimate acquaintance in boyhood with the phenomena of country life :

A blackening train
Of clamorous rooks thick-urge their weary flight, 230
And seek the closing shelter of the grove.

Still more effective, it must be admitted, are the greater poet's briefer words—

Light thickens, and the crow
Makes wing to the rooky wood.

Wild-fowl. Song-birds and domestic fowls are found in human neighbourhoods. They are at leisure, and take their pleasure, in trim gardens and on cultivated fields and in farmyards. But there are birds that shun the path of man, more or less, and would lead their lives far 240 apart from his 'danger'. Such are predacious birds and wild-fowl. Of the latter class Thomson particularizes at least a dozen different kinds. He mentions the plover, the heron, the bittern, the stork, the quail, the partridge, the magpie, the wild-duck, and the heath-hen, besides the jay, the daw, and such varieties of the wild pigeon as the rock-dove or culver and the cushat or queest. He notices the early mating of the plover, its wild cry, its wheeling flight, the under whiteness of its wings, and its artifice in decoying 250 intruders away from its nest. It circles around the head of the wandering swain, with intentional creak-

The Plover.

ing of wings and outcries of distress, and then directly onwards in long excursion skims the ground to tempt him to follow. The heath-hen and the wild-duck employ the same fluttering device to lead astray the hot pursuing spaniel. Of the heron Thomson merely remarks the strength of its upward flight and its peculiar shriek. The bittern, now rare, but no *The Bittern.*
 260 uncommon resident in our island in his day, he faithfully describes as impatient to secure a mate in the early spring. He seems, however, to give credence to the absurd tradition that its drumming or booming in the marsh (which earned for it the name of the 'bull-o'-the-bog') is produced by its 'engulphing' its bill in the bog water and at the same time uttering the cry which is characteristic of the male in the mating season. It is now known that the booming proceeds from the trumpet-like bill and throat turned upwards into the
 270 air in a direction almost vertical.

The birds of prey in Thomson's list include the owl, *Birds of prey.*
 the cormorant, the raven, the hawk, and the eagle. He remarks on the wheeling flight and discordant scream of the cormorant as, on the approach of tempestuous weather, it hurries inland for shelter and food. His owl, like Gray's in the ivy-mantled tower of Stoke-Poges Church, mopes—but we know of its presence by its assiduous hooting. The hawk's nest in the beetling cliff is pointed out; and the raven's
 280 figure is picturesque, because with solitary daring and with a contempt of the scowling sky he adventures forth into the dark expanse of a threatening thunder-cloud. But Thomson has more to say of the royal *The Eagle.*
 bird, the eagle, whose strength of pinion, piercing keenness of vision, and fierce intolerance not only of

rivalry but even of society evoke his admiration. Everybody should know his St. Kilda eagle. Here is his first sketch of its picture :

High from the summit of a craggy cliff
Hung o'er the green sea grudging at its base, 290
The royal eagle draws his young, resolved
To try them at the sun. Strong-pounced, and bright
As burnished day, they up the blue sky wind,
Leaving dull sight below, and with fixed gaze
Drink in their native noon: the father-king
Claps his glad pinions, and approves the birth!

The rather ludicrous image in the last line made Thomson remodel the passage, and in the process the second line was unfortunately sacrificed. Its racy vigour should have preserved it. 300

EDITOR.

NOTES

LINE 3. *as Johnson has said.* See *The Lives of the Poets*,—the latest and the best of all Johnson's contributions to literature, published 1779–81. He was over seventy when *The Lives* began to appear.

19. *One alone, The redbreast, &c.* See *Winter*, ll. 245–56. (These lines on the redbreast did not appear in the first edition. They were a happy afterthought.)

34. *the manse parlour.* Southdean manse, at the foot of Carter Fell, where the poet's infancy and boyhood were passed. He was born at Ednam, in the same county of Roxburghshire as Southdean, but only a few months after his birth he was taken to Southdean on his father's promotion to that parish.

53. *he could never have seen or heard it in Scotland.* The nightingale scarcely ever comes farther north than Yorkshire; never crosses the Cheviots, or even the Tyne.

61. *William Blake*. Born 1757, died 1827 ; author of *Songs of Innocence, Songs of Experience*, &c. The couplet in the text is from a later poem, entitled 'Auguries of Innocence'.

85. *like Milton*. See *Il Penseroso*, ll. 56-64 : 'Thee, chauntress, oft, the woods among,' &c.

90. *Shakespeare, Shelley, Wordsworth, and the Ettrick Shepherd have sung*, &c. See *Cymbeline*, II. iii, 'Hark ! hark ! the lark at heaven's gate sings' ; the lines to a skylark, beginning 'Hail to thee, blithe spirit' ; Wordsworth's 'Ethereal Minstrel ! pilgrim of the sky' ; and James Hogg's 'Bird of the wilderness', respectively.

123. *the sweet o' the year*. From Autolycus's song in *The Winter's Tale*, 'When daffodils begin to peer.'

173. *curious little passage in the poem of Spring*. Lines 772-88,—quoted below (p. 23).

178. *tame villatic fowl*. Quoted from Milton's *Samson Agonistes*, l. 1695.

184. *Milton's chanticleer*. *L'Allegro*, l. 52.

232. *the greater poet's briefer words*. Shakespeare : See *Macbeth*, III. ii.

EXERCISES

1. Describe the various kinds of poultry you have observed on your visit to a farm. (Their structure, plumage, gait, habits, &c.)

2. Write a short essay on the scene which the lines—

Light thickens, and the crow
Makes wing to the rooky wood—

suggest to your imagination. How do they harmonize with the mental environment of Macbeth in the scene where they occur ?

3. Mention five or six migratory birds known to you ; briefly describe them ; note the times of their arrival and departure in your district ; and account for their migration.

4. What poets have written about the cuckoo ? What made the bird especially attractive to Wordsworth ? Who describes it as a 'sweet bird whose bower is ever green, whose sky is ever clear, that has no sorrow in its song, no winter in its year' ?

THE FIRST SOUND EVER HEARD BY HUMAN EAR

WHAT was't awakened first the untried ear
 Of that sole man who was all human kind?
 Was it the gladsome welcome of the wind
 Stirring the leaves that never yet were sere?
 The four mellifluous streams which flowed so near,
 Their lulling murmurs all in one combined?
 The note of bird unnamed? The startled hind
 Bursting the brake in wonder (not in fear)
 Of her new lord? Or did the holy ground
 Send forth mysterious melody to greet 10
 The gracious pressure of immaculate feet?
 Did viewless seraphs rustle all around
 Making sweet music out of air as sweet?
 Or his own voice awake him with its sound?

HARTLEY COLERIDGE.

[Hartley Coleridge, born 1796, died 1849. He was the son of Samuel Taylor Coleridge, the famous author of *The Rime of the Ancient Mariner*; but his Sonnets, upon which his poetical reputation rests, show the influence rather of Wordsworth than of his father. He died the year before Wordsworth: both are buried in Grasmere churchyard.]

EXERCISES

1. Give a plain prose version of this Sonnet.
2. Describe its structure,—metre and rime.
3. Annotate the poem so as to explain every difficulty or obscurity in phrase or allusion. [*E. gr.*, Whose feet are alluded to in the eleventh line?]

BACON'S PLAN OF A GARDEN

GOD Almighty first planted a garden; and indeed *A Garden*
 it is the purest of human pleasures. It is the greatest *a Par-*
 refreshment to the spirits of man; without which *dise.*
 building and palaces are but gross handiworks: and
 a man shall ever see that, when ages grow to civility
 and elegancy, men come to build stately sooner than
 to garden finely—as if gardening were the greater
 perfection.

I do hold it, in the royal ordering of gardens, there
 10 ought to be gardens for all the months in the year in *'Perpe-*
 which, severally, things of beauty may be then in *tuum ver'*
 season. For December and January (and the latter *in the*
 part of November) you must take such things as are *Garden.*
 green all winter—holly, ivy, bays, juniper, cypress-
 trees, yew, pineapple-trees, fir-trees, rosemary, lavender,
 periwinkle (the white, the purple, and the blue), ger-
 mander, flag, orange-trees, lemon-trees, and myrtles
 (if they be stoved), and sweet marjoram (warm set).
 There followeth, for the latter part of January and
 20 for February, the mezereon-tree, which then blossoms;
 also crocus vernus, both the yellow and the grey;
 primroses, anemones, the early tulip, hyacinthus orien-
 talis, chamairis, fritillaria. For March, there come
 violets, especially the single blue—which are the
 earliest; also the early daffodil, the daisy, the almond-
 tree in blossom, the peach-tree in blossom, the cor-
 nelian-tree in blossom, sweetbriar. In April, follow
 the double white violet, the wallflower, the stock-
 gilliflower, the cowslip, flower-de-luces, and lilies of
 30 all natures, rosemary-flowers, the tulip, the double
 peony, the pale daffodil, the French honeysuckle, the

cherry-tree in blossom, the damascene and plum-trees in blossom, the white thorn in leaf, the lilac-tree. In May and June come pinks of all sorts, especially the blush pink, roses of all kinds except the musk, which comes later; also honeysuckles, strawberries, bugloss, columbine, the French marigold, flos Africanus, cherry-tree in fruit, ribes, figs in fruit, rasp, vine flowers, lavender in flowers, the sweet satyrian (with the white flower), herba muscaria, lilium convallium, the apple-⁴⁰ tree in blossom. In July come gilliflowers of all varieties, musk-roses, the lime-tree in blossom, early pears, and plums in fruit, jennetings, codlings. In August come plums of all sorts in fruit, pears, apricocks, barberries, filberts, musk-melons, monkshoods of all colours. In September come grapes, apples, poppies of all colours, peaches, melocotones, nectarines, cornelians, warden, quinces. In October and the beginning of November come services, medlars, bullaces, roses cut or removed to come late, hollyoaks,⁵⁰ and such like. These particulars are for the climate of London: but my meaning is perceived,—that you may have 'ver perpetuum', as the place affords.

*Sweet
scents of
the
Garden.*

And, because the breath of flowers is far sweeter in the air (where it comes and goes like the warbling of music) than in the hand, therefore nothing is more fit for that delight than to know what be the flowers and plants that do best perfume the air. Roses, damask and red, are fast flowers of their smells,—so that you may walk by a whole row of them and find⁶⁰ nothing of their sweetness, yea, though it be in a morning's dew. Bays likewise yield no smell as they grow, rosemary little, nor sweet marjoram. That which above all others yields the sweetest smell in

the air is the violet, especially the white double violet, which comes twice a year—about the middle of April and about Bartholomew-tide. Next to that is the musk-rose; then the strawberry leaves dying (with a most excellent cordial smell); then the flower
 70 of the vines (it is a little dust like the dust of a bent) which grows upon the cluster in the first coming forth; then sweetbriar; then wallflowers, which are very delightful to be set under a parlour or lower chamber window; then pinks and gilliflowers, especially the matted pink and clove-gilliflowers; then the flowers of the lime-tree; then the honeysuckles—so they be somewhat afar off. Of bean-flowers I speak not, because they are field flowers. But those
 80 which perfume the air most delightfully, not passed by as the rest but being trodden upon and crushed, are three, that is—burnet, wild thyme, and water-mint. Therefore you are to set whole alleys of them to have the pleasure when you walk or tread.

For gardens (speaking of those which are indeed prince-like), the contents ought not well to be under thirty acres of ground, and to be divided into three parts—a green in the entrance, a heath or desert in the going forth, and the main garden in the midst, besides alleys on both sides; and I like well that four
 90 acres of ground be assigned to the green, six to the heath, four and four to either side, and twelve to the main garden.

The green hath two pleasures: the one because nothing is more pleasant to the eye than green grass kept finely shorn, the other because it will give you a fair alley in the midst by which you may go in front upon a stately hedge which is to enclose the

*General
plan of the
Garden.*

*The Green
or Lawn.*

garden. But, because the alley will be long, and (in great heat of the year or day) you ought not to buy the shade in the garden by going in the sun through the green, therefore you are of either side the green to plant a covert alley upon carpenter's work about twelve feet in height, by which you may go in shade into the garden. As for the making of knots or figures with divers coloured earths that they may lie under the windows of the House on that side on which the garden stands, they be but toys: you may see as good sights many times in tarts.

*The main
Garden
Hedge.*

The garden is best to be square, encompassed on all the four sides with a stately arched hedge,—the arches to be upon pillars of carpenter's work of some ten feet high and six feet broad, and the spaces between of the same dimensions with the breadth of the arch. Over the arches let there be an entire hedge of some four feet high, framed also upon carpenter's work, and upon the upper hedge over every arch a little turret with a belly enough to receive a cage of birds, and over every space between the arches some other little figure with broad plates of round coloured glass gilt for the sun to play upon. But this hedge I intend to be raised upon a bank, not steep but gently slope, of some six feet set all with flowers; also I understand that this square of the garden should not be the whole breadth of the ground, but to leave on either side ground enough for diversity of side alleys, unto which the two covert alleys of the green may deliver you. But there must be no alleys with hedges at either end of this great enclosure,—not at the hither end for letting your prospect upon this fair hedge from the green, nor at the farther end for letting your

prospect from the hedge through the arches upon the heath.

For the ordering of the ground within the great hedge, I leave it to variety of device,—advising nevertheless that, whatsoever form you cast it into first, it be not too busy or full of work; wherein I, for my part, do not like images cut out in juniper or other garden stuff: they be for children. Little low hedges, round like welts, with some pyramids I like well, and
 40 in some places fair columns upon frames of carpenter's work. I would also have the alleys spacious and fair: you may have closer alleys upon the side grounds, but none in the main garden. I wish also in the very middle a fair mount with three ascents, and with alleys broad enough for four to walk abreast which I would have to be perfect circles without any bulwarks or embossments; and the whole mount to be thirty foot high; and some fine banqueting-house, with some chimneys neatly cast, and without too
 50 much glass.

For fountains, they are a great beauty and refreshment; but pools mar all, and make the garden unwholesome and full of flies and frogs. Fountains I
 60 intend to be of two natures—the one, that sprinkleth or spouteth water; the other, a fair receipt of some thirty or forty feet square, but without any fish or slime or mud. For the first the ornaments of images, gilt or of marble, which are in use do well; but the main matter is, so to convey the water as it never stay either in the bowls or in the cistern—that the water be never by rest discoloured (green or red, or the like) or gather any mossiness or putrefaction; besides, that it is to be cleansed every day by the

*Within
the Main
Garden.*

*Ponds and
fountains
of the
Garden.*

hand. Also some steps up to it and some pavement about it do well. As for the other kind of fountain, which we may call a bathing pool, it may admit much curiosity and beauty (wherewith we will not trouble ourselves)—as that the bottom be finely paved and with images, the sides likewise, and withal embellished with coloured glass and such things of lustre, 170 encompassed also with fine rails of low statues. But the main point is that the water be in perpetual motion, fed by a water higher than the pool, and delivered into it by fair spouts, and then discharged away under ground by some equality of bores that it stay little. And for fine devices (of arching water without spilling, and making it rise in several forms—of feathers, drinking-glasses, canopies, and the like), they be pretty things to look on, but nothing to health and sweetness. 180

*The Heath
or Wilder-
ness.*

For the heath, which was the third part of our plot, I wish it to be framed as much as may be to a natural wildness. Trees I would have none in it, but some thickets, made only of sweetbriar and honeysuckle; and some wild vines amongst; and the ground set with violets, strawberries, and primroses (for these are sweet and prosper in the shade), and these to be in the heath here and there, not in any order. I like also little heaps, in the nature of molehills (such as are in wild heaths), to be set—some with wild thyme, 190 some with pinks, some with germander that gives a good flower to the eye, some with periwinkle, some with violets, some with strawberries, some with cowslips, some with daisies, some with red roses, some with liliun convallium, some with sweetwilliams red, some with bear's foot and the like low flowers, being

withal sweet and sightly; part of which heaps to be with standards of little bushes pricked upon their top, and part without,—the standards to be roses, juniper, holly, berberries (but here and there, because of the smell of their blossom), red currants, gooseberries, rosemary, bays, sweetbriar, and such like, but these standards to be kept with cutting that they grow not out of course.

For the side grounds, you are to fill them with variety of alleys—private, to give a full shade, some of them wheresoever the sun be; you are to frame some of them likewise for shelter, that, when the wind blows sharp, you may walk as in a gallery. And those alleys must be likewise hedged at both ends to keep out the wind; and these closer alleys must be ever finely gravelled, and no grass because of going wet. In many of these alleys likewise you are to set fruit-trees of all sorts, as well upon the wall as in ranges; and this should be generally observed that the borders wherein you plant your fruit-trees be fair, and large, and low (and not steep), and set with fine flowers (but thin and sparingly, lest they deceive the trees). At the end of both the side grounds I would have a mount of some pretty height, leaving the wall of the enclosure breast-high, to look abroad into the fields.

For the main garden, I do not deny but there should be some fair alleys ranged on both sides, with fruit-trees, and some pretty tufts of fruit-trees, and arbours with seats, set in some decent order; but these to be by no means set too thick, but to leave the main garden so as it be not close, but the air open and free. For, as for shade, I would have you rest upon the

alleys of the side grounds, there to walk (if you be ²³⁰ disposed) in the heat of the year or day, but to make account that the main garden is for the more temperate parts of the year, and in the heat of summer for the morning and the evening or overcast days.

*Large
aviaries
only—if
any.*

For aviaries, I like them not, except they be of that largeness as they may be turfed and have living plants and bushes set in them, that the birds may have more scope and natural nestling and that no foulness appear in the floor of the aviary.

The cost!

So I have made a platform of a princely garden, ²⁴⁰ partly by precept, partly by drawing—not a model, but some general lines of it; and in this I have spared for no cost. But it is nothing for great princes; that, for the most part, taking advice with workmen, with no less cost set their things together, and sometimes add statues and such things for state and magnificence—but nothing to the true pleasure of a garden.

ESSAYS: *Of Gardens.*

NOTES

[Francis Bacon (Lord St. Albans) was born in 1561, and died in 1626. His first important book (1597) was a collection of ten short Essays, gradually enlarged till in the last edition (1625) the number was fifty-eight. The Essays are still popular—‘they come home to men’s business and bosoms’.]

LINE 5. *when ages grow to civility and elegancy.* As in the course of time nations become civilized and refined. (‘Civility’ for ‘civilization’.)

10. *months . . . in which, severally, things of beauty may be then in season.* Here ‘severally’ means ‘respectively’. [Each month has its peculiar growth.]

15. *pineapple-trees*. Pine-trees. There is no reference here to the fruit, the pineapple or anana,—unknown in England even in the gardens of the wealthy for half a century after Bacon's death.

17. *and myrtles (if they be stoved)*. That is, warmed by artificial means as in a hothouse, or room containing a stove.

18. *warm set*. Planted in a sheltered place with a fine exposure to the sun.

20. *the mezereon-tree*. This shrub (it is hardly the height of a tree) is a kind of laurel, and is very beautiful in early spring with its light purple or lilac flowers, which come before the leaves, and are sweetly scented. The berries are red, and poisonous except to birds.

21. *crocus vernus*. Spring crocus.

23. *chamaïris*. The dwarf or ground iris: Gr. *chamai*, = on the ground; and iris. (Cf. *chameleon*, and *camomile*.)

26. *cornelian-tree in blossom*. The cornel, or cornelian cherry, blossoms early in spring; the flowers are in little yellow starry clusters, the fruit like a small plum, pleasantly acid.

29. *flower-de-luces*. Irises; fleurs-de-lis. The flag is the yellow iris.

32. *damascene*. Damson (plum of Damascus).

37. *flos Africanus*. Probably the African marigold.

38. *ribes*. Gooseberries and currants.

39. *satyrian*. A variety of orchis.

40. *herba muscaria*. Grape hyacinth.

40. *lilium convallium*. Lily of the Valley.

43. *jennetings*. A kind of early apple, ripe in France about St. John's Day (June 24)—hence the name (probably from *jeanneton*, a diminutive of *Jean* in 'pomme de S. Jean'. [The derivation 'June-eatings' is a fine example of folk-etymology.]

43. *codlings*. Cooking apples. Other forms are 'quodlings', 'querdlings', &c.

47. *melocotones*. 'Apples of Cotonia', quinces. Cotonia or Cydonia was in Crete. [Accent on the fourth syllable.]

48. *wardens*. Large pears—pears that will keep ('poires de garde').

49. *services*. They are a kind of wild pear-tree, the sorb-tree. The fruit is brownish, spotted, berry-like.

49. *bullaces*. Wild plum-trees, with fruit larger and more palatable than sloes.

50. *hollyoaks*. Hollyhocks.

53. *ver perpetuum*. Everlasting spring; or perpetual growth in your garden—something fresh every month.

59. *fast flowers of their smells*. Flowers that retain their smell unless you inhale it closely. (So 'fast colours' are those that will not wash out or run.)

67. *Bartholomew-tide*. August 24.

70. *bent*. Bent-grass.

96. *go in front upon*. Advance towards.

102. *a covert alley upon carpenter's work*. A pergola; a covered walk between and under growing plants trained over trellis-work.

104. *knots*. Patterns or designs; perhaps tufts or crests.

110. *a stately arched hedge, &c.* A tall continuous hedge, adorned with arched openings at intervals of six feet; the hedge to rise four feet above the openings; a small turret to crown each arch all round the garden, and a figure with ornaments of glass and gilding to alternate with the turrets half-way between the arches; the hedge to rise from a gently sloping bank six feet high, and thus to be of a uniform height of twenty feet on all the four sides. [Note that the arched openings are some ten feet high.]

117. *a belly enough to receive a cage of birds*. A round or protuberant cavity large enough, &c. [But see the paragraph, *infra*, on the subject of aviaries.]

121. *a bank, not steep but gently slope*. That is, sloping or slanting very gradually. For the use of 'slope' as an adjective, see Milton's *Comus*, l. 98,—'The slope sun his upward beam Shoots against the dusky pole.'

126. *deliver you*. Land you.

130. *letting your prospect*. Preventing or forbidding your outlook.

136. *too busy or full of work*. Crowded with elaborate devices. 'Busy' means 'on (or in) which much activity (or labour) has been expended'.

137. *images cut out in juniper, &c.* Topiary work, as it was called; mainly practised upon box, yew, and juniper.

139. *welts*. Edgings or borders,—as of box, &c.
144. *three ascents and alleys*, &c. Three paths leading from the garden level to the top of the mount, and crossing in succession three terrace walks encircling the mount.
146. *without bulwarks or embossments*. Without any edging or fence, or raised work of any kind.
149. *neatly cast*. Neatly moulded or fashioned.
155. *receipt of water*. Pond or tank: 'receipt' = 'receptacle'.
157. *slime*. Scum (on the surface; 'mud' at the bottom).
159. *as it never stay*. As that it shall never stay, or remain stagnant.
160. *in the bowls or in the cistern*. In the cup-like vessels, or in the basin, into which the up-spouted water of the fountain falls.
166. *admit much curiosity*. Lend itself to great and varied ornamentation. (Curiosity = careful elaboration.)
175. *some equality of bores*. Pipes of nearly equal bore. (That is, of rather less diameter than the feeding 'spouts'.)
198. *pricked upon their top*. Planted on the top of the heaps.
218. *lest they deceive the trees*. To prevent them defrauding, or depriving the trees of their due moisture or nourishment.
220. *a mount of some pretty height*. A moderately high hillock. (We say 'pretty high'.) [But see a line or two *infra*—'some pretty tufts', = 'some fine clumps'.]
229. *rest upon the alleys*. Depend, or rely on them.
231. *make account*. Reckon, or consider.
240. *I have made a platform*. I have laid down a plan.
242. *I have spared for no cost*. I have not taken the cost of it all into consideration—I have planned it expensively. (The phrase was known to Chaucer—'for no cost wolde he spare'; said of the Monk and his love of coursing.)
243. *it is nothing for great princes*. The cost is a small matter to them: they need not let that stand in their way.
244. *with no less cost set their things together*. Execute the schemes which they favour at a cost as great as the laying out of a garden.

EXERCISES

1. Draw a general plan of the Garden, in proportion to the given dimensions.
2. Draw to scale (say $\frac{1}{2}$ inch to the foot) a careful plan of the hedge of the Main Garden, to the length of, say, twelve feet.
3. Who else (in prose or verse) have written about gardens?
4. Collect a list of obsolete or archaic terms and phrases occurring in the text; and give their modern equivalents.
5. Characterize, and illustrate (by quotation), the style of Bacon as shown in his Essay 'Of Gardens'.
6. Compare Bacon's favourite flowers with those of Shakespeare (as given in *The Winter's Tale*, *Hamlet*, &c.).

GARDEN VERSES BY ANDREW MARVELL

I. THE FAWN IN THE GARDEN

I HAVE a garden of my own,
 But so with roses overgrown
 And lilies that you would it guess
 To be a little wilderness.

All the springtime of the year
 My fawn loved only to be here.

Among the bed of lilies I
 Have sought it oft where it should lie,
 Yet could not—till itself would rise—
 Find it, although before mine eyes.

10

Upon the roses it would feed,
 Until its lips even seemed to bleed;
 And then to me 'twould boldly trip,
 And print those roses on my lip.

All its chief delight was still
 On roses thus itself to fill,
 And its pure virgin limbs to fold
 In whitest sheets of lilies cold:
 Had it lived long it would have been
 Lilies without, roses within.

*The Nymph complaining for the death of
her Fawn.*

II. LIFE IN A GARDEN

FAIR Quiet, have I found thee here,
 And Innocence, thy sister dear?
 Mistaken long, I sought you then
 In busy companies of men.
 Your sacred plants—if here below—
 Only among the plants will grow.
 Society is all but rude,
 To this delicious solitude.

What wondrous life is this I lead!
 Ripe apples drop about my head;
 The luscious clusters of the vine
 Upon my mouth do crush their wine;
 The nectarine and curious peach
 Into my hands themselves do reach;
 Stumbling on melons as I pass,
 Ensnared with flowers, I fall on grass.

Here, at the fountain's sliding foot,
 Or at some fruit-tree's mossy root,
 Casting the body's vest aside,
 My soul into the boughs does glide.

There like a bird it sits and sings,
 Then whets and claps its silver wings,
 And, till prepared for longer flight,
 Waves in its plumes the various light.

Such was that happy garden-state
 While man there walked without a mate:
 After a place so pure and sweet,
 What other help could yet be meet?
 But 'twas beyond a mortal's share
 To wander solitary there.
 Two paradises are in one
 To live in paradise alone !

30

The Garden.

NOTES

[Andrew Marvell, 'poet, patriot, and the friend of Milton,' was born in 1621, near Hull, and died in 1678. His best poems show a fine sense of natural beauty and a delicate felicity of phrasing. But he also wrote some rather coarse satires. In 1650 he became tutor to Mary Fairfax, the young daughter of Lord Fairfax, the Parliamentary General. It was at Appleton House, near Bilborow Hill, that he wrote his poems on the charms of rural retirement. In 1657 he became Milton's assistant in the Foreign Secretaryship of Cromwell's Government; and two years later he sat in Richard Cromwell's parliament as M.P. for Hull.]

I. LINE 1. *I have a garden of my own.* A girl is the speaker.

II. LINE 5. *Your sacred plants—if here below—&c.* That is, If the plants, Innocence and Quiet, grow at all on earth, they are to be found only in rural retirement (among the natural plants in a garden).

8. *To this delicious solitude.* In comparison with, &c.

13. *curious peach.* Even more rare or delicious than the nectarine. But it is possible Marvell uses 'curious' in the

original sense of *curiosus*, viz. 'attentive' ('reaching itself into my hands').

22. *whets . . . its silver wings*. To whet is to sharpen, encourage, or stimulate; here, to preen or trim with the beak, preparatory to a longer flight.

28. *What other help could yet be meet?* The answer expected is 'none'. Marvell is by no means complimentary to the fair sex in the last stanza. According to him Adam would have been too happy without Eve. But this is not according to the Scripture (Gen. ii. 18)—'The Lord God said, It is not good that the man should be alone: I will make him an *help meet* for him.'

THE BUMBLE-BEE'S PARADISE

As I lay yonder in tall grass
 A drunken bumble-bee went past
 Delirious with honey toddy.
 The golden sash about his body
 Scarce kept it in his swollen belly
 Distent with honeysuckle jelly.
 Rose liquor and the sweet-pea wine
 Had filled his soul with song divine;
 Deep had he drunk the warm night through,
 10 His hairy thighs were wet with dew.
 Full many an antic he had played
 While the world went round thro' sleep and shade.
 Oft had he lit with thirsty lip
 Some flower-cup's nectared sweets to sip.
 When on smooth petals he would slip,
 Or over tangled stamens trip,
 And, headlong in the pollen rolled,
 Crawl out quite dusted o'er with gold;

Or else his heavy feet would stumble
 Against some bud, and down he'd tumble
 Amongst the grass; there lie and grumble
 In low, soft bass—poor maudlin bumble!

20

HENRY A. BEERS

(quoted by Walt Whitman in
Specimen Days, under the
 heading 'Bumble-Bees').

[Compare this poem with the second stanza of the preceding poem—'Life in a Garden'—by Marvell.]

COWPER'S THREE TAME HARES

*A gift of
 leverets.*

IN the year 1774, being much indisposed both in mind and body, incapable of diverting myself either with company or books, and yet in a condition that made some diversion necessary, I was glad of anything that would engage my attention without fatiguing it. The children of a neighbour of mine had a leveret given them for a plaything; it was at that time about three months old. Understanding better how to tease the poor creature than to feed it, and soon becoming weary of their charge, they readily¹⁰ consented that their father, who saw it pining and growing leaner every day, should offer it to my acceptance. I was willing enough to take the prisoner under my protection, perceiving that in the management of such an animal, and in the attempt to tame it, I should find just that sort of employment which my case required. It was soon known among the neighbours that I was pleased with the present, and

the consequence was that in a short time I had as
 20 many leverets offered to me as would have stocked
 a paddock. I undertook the care of three, which it is
 necessary that I should here distinguish by the names
 I gave them—Puss, Tiney, and Bess. Notwithstand-
 ing the two feminine appellatives, I must inform you
 that they were all males. Immediately commencing
 carpenter, I built them houses to sleep in, three sepa-
 rate apartments, with an earthen pan under the per-
 forated floor of each, which being duly emptied and
 washed, they were thus kept perfectly sweet and
 30 clean. In the daytime they had the range of a hall,
 and at night retired each to his own bed, never
 intruding into that of another.

Puss grew presently familiar, would leap into my *Puss*.
 lap, raise himself upon his hinder feet, and bite the
 hair from my temples. He would suffer me to take
 him up and to carry him about in my arms; and has
 more than once fallen fast asleep upon my knee. He
 was ill three days, during which time I nursed him,
 kept him apart from his fellows that they might not
 40 molest him (for, like many other wild animals, they
 persecute one of their own species that is sick), and,
 by constant care and trying him with a variety of
 herbs, restored him to perfect health. No creature
 could be more grateful than my patient after his
 recovery; a sentiment which he most significantly
 expressed by licking my hand, first the back of it,
 then the palm, then every finger separately, then
 between all the fingers, as if anxious to leave no part
 of it unsaluted; a ceremony which he never performed
 50 but once again upon a similar occasion. Finding him
 extremely tractable, I made it my custom to carry

him always after breakfast into the garden, where he hid himself generally under the leaves of a cucumber vine, sleeping or chewing the cud till evening: in the leaves also of that vine he found a favourite repast. I had not long habituated him to this taste of liberty, before he began to be impatient for the return of the time when he might enjoy it. He would invite me to the garden by drumming upon my knee, and by a look of such expression as it was not possible to 60 misinterpret. If this rhetoric did not immediately succeed, he would take the skirt of my coat between his teeth, and pull at it with all his force. Thus Puss might be said to be perfectly tamed, the shyness of his nature was done away, and on the whole it was visible, by many symptoms which I have not room to enumerate, that he was happier in human society than when shut up with his natural companions.

Tiney. Not so Tiney. Upon him the kindest treatment had not the least effect. He too was sick, and in his 70 sickness had an equal share of my attention; but if, after his recovery, I took the liberty to stroke him, he would grunt, strike with his fore feet, spring forward and bite. He was, however, very entertaining in his way; even his surliness was matter of mirth, and in his play he preserved such an air of gravity, and performed his feats with such a solemnity of manner, that in him too I had an agreeable companion.

Bess. Bess, who died soon after he was full grown, and 80 whose death was occasioned by his being turned into his box (which had been washed) while it was yet damp, was a hare of great humour and drollery. Puss was tamed by gentle usage; Tiney was not to be

tamed at all; and Bess had a courage and confidence that made him tame from the beginning. I always admitted them into the parlour after supper, when, the carpet affording their feet a firm hold, they would frisk, and bound, and play a thousand gambols,—in
 90 which Bess, being remarkably strong and fearless, was always superior to the rest, and proved himself the Vestris of the party. One evening the cat, being in the room, had the hardiness to pat Bess upon the cheek,—an indignity which he resented by drumming upon her back with such violence that the cat was happy to escape from under his paws and hide himself.

I describe these animals as having each a character
 of his own. Such they had in fact, and their coun-
 100 tenances were so expressive of that character that, *Character and disposition of hares.*
 when I looked only on the face of either, I immediately knew which it was. It is said that a shepherd, however numerous his flock, soon becomes so familiar with their features that he can by that indication only distinguish each from all the rest, and yet to a common observer the difference is hardly perceptible. I doubt not that the same discrimination in the cast of countenances would be discoverable in hares, and am persuaded that among a thousand of them no two
 110 could be found exactly similar; a circumstance little suspected by those who have not had opportunity to observe it. These creatures have a singular sagacity in discovering the minutest alteration that is made in the place to which they are accustomed, and instantly apply their nose to the examination of a new object. A small hole being burnt in the carpet, it was mended with a patch, and that patch in a moment underwent

the strictest scrutiny. They seem too to be very much directed by the smell in the choice of their favourites: to some persons, though they saw them ¹²⁰ daily, they could never be reconciled, and would even scream when they attempted to touch them; but a miller coming in engaged their affections at once; his powdered coat had charms that were irresistible. It is no wonder that my intimate acquaintance with these specimens of the kind has taught me to hold the sportsman's amusement in abhorrence. He little knows what amiable creatures he persecutes, of what gratitude they are capable, how cheerful they are in their spirits, what enjoyment they have of life, and ¹³⁰ that, impressed as they seem with a peculiar dread of man, it is only because man gives them peculiar cause for it.

That I may not be tedious I will just give a short summary of those articles of diet that suit them best.

Their food. I take it to be a general opinion that they graze, but it is an erroneous one—at least grass is not their staple; they seem rather to use it medicinally, soon quitting it for leaves of almost any kind. Sow-thistle, dent-de-lion, and lettuce are their favourite vegetables, ¹⁴⁰ especially the last. I discovered by accident that fine white sand is in great estimation with them—I suppose as a digestive. It happened that I was cleaning a bird-cage when the hares were with me; I placed a pot filled with such sand upon the floor, which being at once directed to by a strong instinct, they devoured voraciously; since that time I have generally taken care to see them well supplied with it. They account green corn a delicacy, both blade and stalk, but the ear they seldom eat; straw of any kind, especially ¹⁵⁰

wheat-straw, is another of their dainties; they will feed greedily upon oats, but, if furnished with clean straw, never want them: it serves them also for a bed, and, if shaken up daily, will be kept sweet and dry for a considerable time. They do not indeed require aromatic herbs, but will eat a small quantity of them with great relish, and are particularly fond of the plant called musk. They seem to resemble sheep in this; that if their pasture be too succulent they are
 160 very subject to the rot; to prevent which, I always made bread their principal nourishment, and, filling a pan with it cut into small squares, placed it every evening in their chambers, for they feed only at evening and in the night. During the winter, when vegetables were not to be got, I mingled this mess of bread with shreds of carrot, adding to it the rind of apples cut extremely thin—for, though they are fond of the paring, the apple itself disgusts them. These, however, not being a sufficient substitute for the juice
 170 of summer herbs, they must at this time be supplied with water,—but so placed that they cannot overset it into their beds. I must not omit that occasionally they are much pleased with twigs of hawthorn and of the common briar, eating even the very wood when it is of considerable thickness.

Bess, I have said, died young. Tiney lived to be nine years old, and died at last (I have reason to think) of some hurt in his loins by a fall. Puss is still living, and has just completed his tenth year, discovering no
 180 signs of decay, nor even of age, except that he is grown more discreet and less frolicsome than he was. I cannot conclude without observing that I have lately introduced a dog to his acquaintance,—a spaniel that

No
natural
antipathy
between
dog and
hare.

had never seen a hare to a hare that had never seen a spaniel. I did it with great caution, but there was no real need of it: Puss discovered no token of fear, nor Marquis the least symptom of hostility. There is therefore, it should seem, no natural antipathy between dog and hare, but the pursuit of the one occasions the flight of the other, and the dog pursues because he is¹⁹⁰ trained to it. They eat bread at the same time out of the same hand, and are in all respects sociable and friendly.

The hare
a clean
animal.

I should not do complete justice to my subject did I not add that hares have no ill scent belonging to them; that they are indefatigably nice in keeping themselves clean, for which purpose nature has furnished them with a brush under each foot; and that they are never infested by any vermin.

NOTES

[Cowper's prose account of his hares was published in *The Gentleman's Magazine* for June, 1784: he wrote it in May of the same year. He was then living at Olney, with Mrs. Unwin, and pleasantly engaged in the composition of his great work *The Task*, begun in the summer of 1783 at the instigation of Lady Austen. He sent other contributions to *The Gentleman's Magazine* after this, both verse and prose; among these his *Epitaph on a Hare*,—

Here lies, whom hound did ne'er pursue,
Nor swifter greyhound follow,
Whose foot ne'er tainted morning dew,
Nor ear heard huntsman's hollow,
Old Tiney, surliest of his kind,
Who, nurst with tender care,
And to domestic bounds confined,
Was still a wild Jack-hare.

Though duly from my hand he took
 His pittance every night,
 He did it with a jealous look,
 And, when he could, would bite.

His diet was of wheaten bread,
 And milk, and oats, and straw,
 Thistles, or lettuces instead,
 With sand to scour his maw.

On twigs of hawthorn he regaled,
 On pippins' russet peel ;
 And, when his juicy salads failed,
 Sliced carrot pleased him well.

A Turkey carpet was his lawn,
 Whereon he loved to bound,
 To skip and gambol like a fawn,
 And swing his rump around.

His frisking was at evening hours,
 For then he lost his fear ;
 But most before approaching showers,
 Or when a storm drew near.

Eight years and five round-rolling moons
 He thus saw steal away,
 Dozing out all his idle noons,
 And every night at play.

I kept him for his humour's sake,
 For he would oft beguile
 My heart of thoughts that made it ache,
 And force me to a smile.

But now, beneath this walnut-shade
 He finds his long, last home,
 And waits, in snug concealment laid,
 'Till gentler Puss shall come.

He, still more agèd, feels the shocks
 From which no care can save,
 And, partner once of Tiney's box,
 Must soon partake his grave.]

LINE 1. *In the year 1774, being much indisposed, &c.* In this, the opening sentence of his article, Cowper pathetically alludes to the effect of an attack of madness, the third he had experienced within ten years. At the time of the attack (which lasted from January 1773 till the early summer of 1774), he was living with his friend Mrs. Unwin at Orchard Side, Olney, or at his friend the Rev. John Newton's in the same village. It was after his return from the Vicarage to Orchard Side in May 1774 that he began to keep hares as pets.

24. *two feminine appellatives.* Puss and Bess.

61. *rhetoric.* Persuasive artifice.

91. *the Vestris of the party.* A Florentine family of this name gave to Europe a series of cooks, actors, and ballet-dancers, more or less distinguished in their various callings. To a ballet-dancer of this family, popular in London, Cowper here refers.

126. *to hold the sportsman's amusement in abhorrence.* See *The Task*, Book III, ll. 326 *seqq.*:

Detested sport,
That owes its pleasures to another's pain;
That feeds upon the sobs and dying shrieks
Of harmless nature, dumb, but yet endued
With eloquence, that agonies inspire,
Of silent tears and heart-distending sighs! . . .
Well—one at least is safe. One sheltered hare
Has never heard the sanguinary yell
Of cruel man, exulting in her woes.
Innocent partner of my peaceful home,
Whom ten long years' experience of my care
Has made at last familiar, . . .
Yes, thou mayst eat thy bread, and lick the hand
That feeds thee; thou mayst frolic on the floor
At evening, and at night retire secure
To thy straw couch, and slumber unalarmed:
For I have gained thy confidence . . .
If I survive thee I will dig thy grave;
And, when I place thee in it, sighing say
I knew at least one hare that had a friend.

156. *aromatic herbs*. Such as anise, mint, parsley, &c.

179. *discovering no signs of decay*. 'Discovering' here has the meaning of 'showing'.—Among Cowper's papers, after his death, was found the following memorandum: 'Tuesday, March 9, 1786. This day died poor Puss, aged eleven years eleven months. She (*sic*) died between twelve and one at noon, of mere old age, and apparently without pain.'

THE HUNTED HARE

POOR is the triumph o'er the timid hare,
Scared from the corn, and now to some lone seat
Retired—the rushy fen, the ragged furze
Stretched o'er the stony heath, the stubble chapt,
The thistly lawn, the thick entangled broom,
Of the same friendly hue the withered fern,
The fallow ground laid open to the sun
Concoctive, and the nodding sandy bank
Hung o'er the mazes of the mountain brook.

*The hare
in her
form.*

10 Vain is her best precaution, though she sits
Concealed with folded ears, unsleeping eyes
By Nature raised to take the horizon in,
And head couched close betwixt her hairy feet,
In act to spring away.

*Her
vigilance.*

The scented dew
Betrays her early labyrinth; and deep,
In scattered sullen openings, far behind,
With every breeze she hears the coming storm.

*The
Harriers!*

20 But, nearer and more frequent as it loads
The sighing gale, she springs amazed,—and all
The savage soul of game is up at once;

Her flight.

The pack full-opening various, the shrill horn
 Resounded from the hills, the neighing steed
 Wild for the chase, and the loud hunter's shout,—
 O'er a weak harmless, flying creature all
 Mixed in mad tumult and discordant joy.

JAMES THOMSON: *The Seasons (Autumn)*.

NOTES

[Thomson was in his thirtieth year when, in 1730, he published *Autumn*. Field sports naturally fall to be considered in a poem descriptive of Autumn; but, as Thomson himself said, they 'are not subjects for the peaceful muse'. His sympathy is with the hunted creature,—as was that of Cowper, Burns, and Wordsworth. For evidence of Wordsworth's sympathy see *Hart-Leap Well*; for Burns's see his *Lines on Seeing a Wounded Hare Limp by Me*, or the *Autumn Song to Peggy* beginning—'Now westlin' winds and slaught'ring guns.' Shakespeare's Hare hunt, in *Venus and Adonis*, shows how keen his interest in the sport must have been :

And, when thou hast on foot the purblind hare,
 Mark the poor wretch, to overshoot¹ his troubles
 How he outruns the wind, and with what care
 He cranks² and crosses with a thousand doubles³:
 The many musits⁴ through the which he goes
 Are like a labyrinth to amaze⁵ his foes.

Sometime he runs among a flock of sheep,
 To make the cunning hounds mistake their smell;
 And sometime where earth-delving conies keep⁶,
 To stop the loud pursuers in their yell;
 And sometime sorteth with a herd of deer
 (Danger deviseth shifts; wit waits on fear),

¹ get beyond.
 small holes.

² bends.
⁵ bewilder.

³ returnings.
⁶ have their habitat.

⁴ gaps or

For, there his smell with others' being mingled,
 The hot scent-snuffing hounds are driven to doubt—
 Ceasing their clamorous cry till they have singled
 With much ado the cold fault¹ cleanly out:
 Then do they spend their mouths²! Echo replies,
 As if another chase were in the skies.

By this, poor Wat³, far off upon a hill
 Stands on his hinder legs with listening ear,
 To hearken if his foes pursue him still:
 Anon their loud alarums⁴ he doth hear,—
 And now his grief may be comparèd well
 To one sore sick that hears the passing-bell⁵!

Then shalt thou see the dew-bedabbled wretch
 Turn, and return, indenting⁶ with the way;
 Each envious briar his weary legs doth scratch,
 Each shadow makes him stop, each murmur stay:
 For misery is trodden on by many,
 And, being low, never relieved by any.

LINE 4. *stubble chapt.* The ends of the cut corn-stalks. A chap is a crack or a cut.

6. Cp. Somerville's poem *The Chace*, Bk. II :

The withered grass that clings
 Around her head, of the same russet hue,
 Almost deceived my sight.

The Chace was published five years after *The Seasons*.

7. *The fallow ground.* Land newly ploughed.

8. *Concoctive.* That dries, warms, and bakes it.

11. *eyes By Nature raised.* A hare's eyes project in such a way as to give it a wide range of vision ; but they are so situated in its head that, while it sees well on each side and even behind, it does not see well, if at all, straight in front. Hence Shake-

¹ faint scent which has brought them to a stand. ² spare not.
 their cries. ³ the hare. ⁴ calls to pursuit. ⁵ death-bell.
⁶ winding.

speare's description (in the passage given a few lines above) of the 'purblind hare'. Cp. Chaucer's account of the Pardoner's eyes in the Prologue to *The Canterbury Tales*—

Swich glaringe eyen hadde he as an hare.

14. *The scented dew.* Harriers, or beagles, hunt the hare relying on their scent; greyhounds rely on their sight.

16. *openings.* The barking of the hounds working on a hot scent.

THE HALCYON, OR KINGFISHER

*The King-
fisher an
estray
from the
Tropics.*

AN American essayist in a poetical mood has referred to the wild bee as 'an animated torrid zone'—a conceit as quaint as any which the ingenuity of Donne or the fancy of Fuller ever invented. The designation suggests (as it was suggested by) the indolent ease of the insect's loitering flight among summer blossoms, its drowsy hum of contentment, but especially the warm golden cincture with which its velvet jacket is loosely girt. But the banded bee is not the only creature resident in our high latitudes which reminds us of torrid warmth and colouring. There is the peacock—a vision of the gorgeous East, with its 'aungel's fethres brighte'; but the bird needs man's care and protection and is with us only on these conditions. There is the parrot, too; but he is a captive, and had no choice of settlement when he exchanged his native paradise for our colder and dimmer skies. The one genuine immigrant or estray from the tropics which lives of its own free accord among us, without bating one jot of its foreign splendour, is the kingfisher.

What a casual observer (such as a keen angler intent on filling his basket, or a poet wandering by the running brooks in a reverie of unordered meditation) sees of this bird is only a flash of brilliant blue and green vanishing down the reach or round the bend of a bosky clear-flowing stream. He probably never sees it but on the wing. If, however, he has the good fortune to come upon it perched upon a low bough projecting over the water, and if he has the sense to remain motionless as he gazes, his eyes will be blessed with such a wealth and beauty of varied colouring as will make him insensible to the rather ungraceful form which that colouring adorns.

Beauty of form, it is said, is of a higher order than beauty of colour; and the highest beauty of form lies in proportion. This quality nature has withheld from the kingfisher. None of its parts is in proportion to its bulk. The bill—a fish-spear of splendid efficiency—is big enough for a bird three times its size. The arch of its head and neck is not without grace, and the curve of its back, considered merely as a curve, pleases the eye; but they seem to belong to a bird of a larger build, and do not combine to produce in the kingfisher the harmonious effect of a well-proportioned figure. The wings look short, and the tail, too, has a docked appearance, making a by no means symmetrical balance with the large beak; while the feet (like those of the swift) are small and feeble,—so small, indeed, as to be almost invisible. Such as it is, however, its form is well adapted to its mode of life and manner of nesting; and these are considerations compared to which matters of taste in regard to form are of secondary importance. Its dimensions are—Length,

Its general beauty of colouring.

Its form disproportionate—

but well adapted to its mode of life.

Its dimensions. a trifle over seven inches; width with outstretched wings, only ten. Compare these dimensions with those of the swift—Length, scarcely eight inches; width seventeen! It might well be inferred that the kingfisher is incapable of a long-sustained flight, such as the swift thinks nothing of, even though it extends to thousands of miles; yet ‘the sea-blue bird’ spends ⁶⁰ much of its time on the wing, and flies with a rapidity which tasks the eye. The wing is not only short, but hollow; and it may be that this hollowness makes for celerity in flying.

Its hues in detail. But the colouring of the bird, most people will say, makes amends for its disproportion of form. The brilliancy of the tints, whether seen when the bird is in motion or when it is at rest, is simply indescribable. It flies low on the water, preferring a stream with banks fairly steep; and, therefore, the general impres- ⁷⁰ sion one has of its hues as an elusive adornment of the air is received from its upper feathers. The observer looks down from the bank and sees, as Tennyson saw, a sea-purple bird ‘like a finer light in light’ flit by; more correctly, sees a little bird with back of azure-blue passing into green. If the water be still and clear, as it usually is when the kingfisher goes forth to feed, the happy observer may also see, as Keats saw, delighted, the reflection of its under side fleeting past him with ungracious haste—a lovely vision of mingled ⁸⁰ rose and gold. If he come upon it perched by the far side of a pool, it is the glowing tints of its throat and breast that catch his eye against the natural background of grasses or green leaves; and he may be wondering whether it is not some rare flower of exotic beauty that has got somehow among the sombre

alders, when it takes quick flight, and he is left with a new wonder—the wonder at his own mistake.

The rarity of the kingfisher and the loveliness of
 90 its plumage have made the bird much in request by the bird-stuffer. Unfortunately it is easy of capture, by a simple device which takes advantage of its habit of darting under bridges, and which for love of the bird, and for love of those who love it, is not here to be divulged. When stuffed it is set up under glass to adorn a corner of a room, and certainly, when the work is done by a skilful taxidermist operating on a fine specimen, the result is a thing of sufficient beauty.

But a strange use of great antiquity continues even
 100 yet to be made of the stuffed or dried kingfisher. It *Its use as a weather-vane.* is made to answer within doors the purpose of a weather-vane. Suspended from the ceiling or rafters by a line or single thread attached to its neck, this singular weathercock, acting within the shelter of walls and independently of contact with the winds of heaven, turns a spontaneous beak to the quarter from which the wind chooses at any hour to blow! References to this meteorological service of the dead kingfisher are not at all uncommon in our earlier poetry.
 110 ‘How stands the wind?’ says the Jew, looking up from his gold on the counter; ‘into what corner peers my halcyon’s bill? Ha! to the east;—see how stand the vanes!’ They confirm the bird’s report with sufficient accuracy—‘East, and by south!’ But Shakespeare’s testimony is better known than Marlowe’s: eye-servants like the steward in *King Lear* are described by Kent as ‘turning their halcyon beaks with every gale and vary of their masters’. Kent, by the way, seems to have been a specialist in bird

history, for, in the same outburst of anger, he finds 120
Oswald successively like a wagtail, a kingfisher, and
a goose,—and every time to his discredit!

*The
myth of
Alcyone.*

But there is a yet more ancient connexion of the
kingfisher or halcyon with the weather than the
mediaeval practice of converting the dead bird into
a vane. Its appearance was the certain sign and
assurance of calm weather, and it became the emblem
of peace. As such it was known, of course, to Ben
Jonson—who (as every schoolboy knows) wore a
'learnèd sock'. We, therefore, find him, in the elabo- 130
rate *tableau vivant* which he prepared for the Corona-
tion entertainment of King James, providing Quiet
with (among other accessories) 'an upright level as
the ensign of rest, on the top of which sat an halcyon
or king's fisher'. Ben's emblematical design (or,
indeed, the still current phrase of 'halcyon days')
carries us back to the classical myth of Ceyx and
Alcyone, which caught the poetical fancy of Ovid, and
over which one memorable night Dan Chaucer fell
asleep and forgot his domestic discomfort. The myth 140
tells how, in reward for her lovingness in his lifetime,
and her loyalty after his death for her husband
drowned at sea, the gods changed Alcyone into the
beautiful bird that still in poetry bears her name, and
gave her at the winter solstice a period of utter calm
in which to build her nest and rear her sea-borne
young. Hence Milton's fine allusion in the Nativity
Ode to 'the bird of calm' that on the first Christmas-
eve sat 'brooding on the charmed wave'.

*The King-
fisher an
unsociable
bird.*

The kingfisher, if the weather be not too severe and 150
food be plentiful, stays in the same locality the whole
year round. It is an unsociable bird, being seldom

accompanied when on the wing even by its mate, and then only at a long interval. As soon as its young are fledged, it drives them off to the fortune of alien regions, and resents the intrusion of strangers of its own kind into resorts with which it has become familiar, and over which it has established a possessor's claim. It has a note, but seldom utters it—a *Its note.*

160 thin piping cry of *tee-tee-tee*—and only when flying. Its feet are small and feeble; and, once seated on its perch—the bough of a tree that loves the water, or even (to the astonishment of the patient angler) a projecting fishing-rod—it is inclined to remain, motionless but vigilant, for a long period, never changing its position by turning or hopping, like (say) a restless hedge-sparrow. It is on the whole a sedentary bird, but extremely active when in motion. It lives on fish *Its food.*

170 quantity of small fry in a season. It plunges from a low perch, or even, after a short hovering like a hawk, direct from the air, into the pool where it spies a prey, disappears from sight, and emerges nearly always with its victim in its powerful beak. It stuns or strikes it dead on a tree-bough, and swallows it entire. Like the owl, it disgorges what is indigestible. Its nest has nothing romantic either in its appearance *Nest and eggs.*

180 remarkable as being made of disgorged bones and shells, and is invariably in a hole, from two to three feet deep, and sloping upwards into the interior of a bank. The eggs, six to eight in number, are small, glossy white, with a faint pinky opalescent suffusion until blown. A young kingfisher is known, when fully fledged, from an old one only by its dusky black

feet: an old bird has scarlet toes. The bird is said to frequent romantic streams, as if it were attracted by the scenery; but it may be found on dull, sluggish waters, flowing with scarcely a current through flat uninteresting deserts, if only there be plenty of food ¹⁹⁰ and a bank favourable for nesting. It is only the beauty of its plumage that makes one associate the bird with lovely scenery and romantic streams; where also, of course, it is to be incidentally found, and where, indeed, it looks like the visible embodiment of the spirit of the place. A glen that is fit home for a kingfisher, and has that lovely bird for its occupant, is for ever a fairy place to the imagination.

EDITOR.

NOTES

LINE 1. *An American essayist.* Ralph Waldo Emerson (1803-82), sometimes called the American Carlyle. He wrote mainly in prose, but also in verse. *Wood-notes* and a poem on May-day are good specimens of his verse; *The Method of Nature* and *Society and Solitude* of his prose. His poem on 'The Humble Bee' begins—

Burly dozing humble bee!
Where thou art is clime for me.
Let them sail for Porto Rique
Far-off heats thro' seas to seek,
I will follow thee alone,
Thou animated torrid-zone!

3. *the ingenuity of Donne.* John Donne (1573-1631), a witty satirical poet (and popular preacher) with a passion for 'conceits' and similes, not always in good taste.

4. *the fancy of Fuller.* Thomas Fuller (1608-61), a royalist clergyman, author of *The Worthies of England*, his last and great work. His style is enlivened with picturesque images and pithy

phrases which take the fancy—as when he writes of negroes as ‘God’s images cut in ebony’.

13. *aungel's fethres brighte*. Quoted from Chaucer's *Parlement of Foules*, l. 356.

60. *the sea-blue bird* [of March]. Quoted from Tennyson's *In Memoriam*, section XCI: ‘When rosy plumelets tuft the larch,’ &c.

73. *as Tennyson saw*. In a letter to the Duke of Argyll (1864) Tennyson states that, while walking one day in March by a deep-banked brook, he saw, flitting or fleeing beneath him, and under the leafless bushes, a gorgeous kingfisher, and that there came simultaneously into his mind the phrase by which an old Greek poet has described the bird—*halipórphyros éiaros órnis*.

78. *as Keats saw*. See the fragmentary *Imitation of Spenser*—‘Now Morning from her orient chamber came,’ &c.

110. *says the Jew*. The principal character in Marlowe's *Jew of Malta*.

128. *Bén Jonson—who wore a learnèd sock*. The reference is to a passage in Milton's *L'Allegro*—

Then to the well-trod stage anon,

If Jonson's learnèd sock be on (ll. 131, 132).

Here ‘sock’ is equivalent to ‘comedy’.

139. *over which Dan Chaucer fell asleep*. See Chaucer's Proem to *The Book of the Duchesse*. It begins with a reference to a mysterious insomnia from which the poet had suffered for eight years—caused, perhaps, by the unhappiness of his married life. Reading is the resource of the sleepless; and one night he opened Ovid's *Metamorphoses*, and there (in the eleventh book) he became engrossed in the story of Ceyx and Alcyone: he read of their happy married life, of Ceyx's perilous voyage and death by drowning, of Alcyone's weary waiting for her lord's return, of the revelation to her in a dream of his death, and of her own death from sorrow for his sake. Chaucer fell into a reverie over the sad story, and gradually sank into a slumber that brought with it the vision of a new world and the mingled happiness and woe of other men.—*Dan*, or *Dominus* (Sp. *Don*) = Mr. or Lord.

EXERCISES

1. What personal knowledge have you of the Kingfisher? Write an account of it.

2. Can you explain how the suspended body of a dead Kingfisher answers the purpose of a weather-vane?

3. Contrast the colouring of the Kingfisher with its form.

4. Describe its habits, nesting-place, nest, eggs, &c.

5. Find the passage in *King Lear* where reference is made to the Kingfisher. Find out the connexion between the Halcyon and Alcyone.

ABOUT BATS

THE sight of a flying bat on a mild evening in March is something of a phenomenon, but the appearance of this curious creature in December is a rarer phenomenon still. And yet its visibility or invisibility in our country is merely a question of temperature, for it hibernates (or goes to sleep) in cold weather; and the wonder is less that the bat comes abroad sometimes in winter than that in the winter season we have occasionally days of summer warmth.

Though the bat has a natural power of continued locomotion in the air, it is not a bird; it is really a quadruped, like the mouse, but with a remarkable provision, especially in the forelegs, for flying: it is a small flying mammal. The old Anglo-Saxon names of 'flutter-mouse' and 'rere-mouse' are perhaps the best popular names the creature could have, as at once describing its most conspicuous features and being passably scientific. But to Science the common or little bat is known as the pipistrelle, and the large

*Bats in
Winter.*

*The Bat
a flying
quad-
ruped.*

*The
Pipistrelle
and the
Noctule.*

bat as the noctule. The latter may be said to sleep throughout the winter season; but the pipistrelle appears almost every month in the year. Any relaxation of temperature which promises the chance of an insect or two is sufficient to draw it from its dormitory even in mid-winter. The pipistrelle may be found at any time during the day, but generally comes out to hunt in the evenings of summer a considerable time before sunset. The large noctule (which may be regarded as Ariel's bat) comes forth an hour before, and flits about an hour or more after sunset. It flies much higher than the little pipistrelle, and may sometimes be seen to fall suddenly a few feet down the air—a movement due to its sudden interest in a good-sized moth which it has just struck into its tail pouch, and which it must at once secure. Both the pipistrelle and the noctule are rather denizens of the twilight than of the night. They are most often seen in the evening twilight, because of the well-known habit of mankind to neglect the morning; but they are as much abroad in the grey of the morning, when observers are few. Their shrill intermittent scream or squeal shows either their eagerness in the chase or their enjoyment of aerial freedom. They see better than the nocturnal bats.

Bats of the twilight.

Of the nocturnal bats, which flit about more or less all night, two varieties, though rare with us, are worth noticing—viz. the long-eared (or rather the double-eared) variety, with outer ears as long as its body and inner ears of extreme sensitiveness; and the strange, uncanny variety that flits noiselessly in the dark over the glimmer of dead water, known as Daubenton's bat. These two bats, the long-eared and Daubenton's,

The long-eared Bat and Daubenton's Bat.

Nocturnal Bats.

come out only after sunset, and hawk after insects all night long. They are truly nocturnal, like the owls among birds, and they sometimes get in the way of the owls, to their own misfortune. If they do not see so well as the bats of the twilight (the pipistrelle and the noctule), they seem to be compensated by nature for defect of vision with superior fineness of hearing, smell, and perhaps touch. The apparatus known as 60 nose-leaves, and the duplicate ear-cloaks of the night bats give them a grotesque appearance which is not captivating; but nature did not mean to make them ridiculous or repulsive, but to provide them with serviceable means of attaining their ends.

The food of Bats.

A well-known proverbial simile refers to the blindness of the bat, and another to that of the mole. It is right enough in regard to the mole, which, whatever sensitiveness it has of hearing, feeling, and smell, has only a rudimentary organ of sight enabling it to dis- 70 tinguish light from darkness; but it is so far wrong in regard to the bat that its vision (though the creature, like the owl, is dazzled by broad daylight) is unusually keen in the twilight, and serves it well in its pursuit of flies, moths, and beetles, which constitute the main part of its food. There are varieties of the bat, chiefly found in tropical regions, that live mostly on fruit; and others, of which the vampire bat is a notorious example, are sanguinary in their tastes; but in our country the value of the bat in destroying 80 insects in the interest of the agriculturist much outweighs the loss it occasions the fruit-grower. Gilbert White one evening near Richmond observed hundreds of bats in sight at one time hawking after insects along the Thames with quite the speed and activity

of the swallow. Like swallows, they drink on the wing; and they frequent waters, not only for the sake of drinking, but on account of insects, which (for some reason or another) are sometimes found over
90 pools and streams in great plenty. White has recorded the entertainment he found in watching the habits and manners of a tame bat which took flies from his hand :

‘If you gave it anything to eat, it brought its wings round before the mouth, hovering and hiding its head in the manner of birds of prey when they feed. The adroitness it shewed in shearing off the wings of the flies (which were always rejected) was worthy of observation, and pleased me much. Insects seemed to be most acceptable, though it did not refuse raw
100 flesh when offered: so that the notion that bats go down chimneys and gnaw men’s bacon seems no improbable story. While I amused myself with this wonderful quadruped,’ he continues, ‘I saw it several times confute the vulgar opinion, that bats when down on a flat surface cannot get on the wing again, by rising with great ease from the floor. It ran with more dispatch than I had been aware of, but in a most ridiculous and grotesque manner.’

In his remark upon bats eating bacon, hung in the
110 capacious chimney to benefit by the smoke of wood-fires, White was not mistaken. They have been known to eat the butter off slices of bread-and-butter ; and, in addition to bats walking or running on the ground, he might have referred to their undoubted ability to swim—holding up their heads the while, just like a dog in the same circumstances.

Nocturnal bats have a sense perception which, even if they were blind, performs in a marvellous way the *Bats able to feel at a distance.*

function of sight. No animal, it is thought, has a higher development of touch. In darkness its skin, ¹²⁰ whether of wing, ear, or nose-leaf, not only feels the slightest contact of a stationary or moving object, but apparently even the presence or neighbourhood of an object—whether twig, stone, telegraph wire, or wandering moth—without actually touching it: in brief, bats can feel at a distance! Experiments have been made with them deprived of every sense but touch, and they have been seen to avoid a network of threads stretched in their way, and to pursue, without colliding against the boundaries, very tortuous wind- ¹³⁰ ings to which their flight was confined.

*Where
and how
Bats sleep.*

In a passage in *Isaiah* bats are associated with moles, not for their defectiveness of vision, but for the secrecy and obscurity of their abodes in lonely, out-of-the-way nooks and recesses. The bat hides itself (mostly gregariously, though a few are solitary) in ruined roofs and deserted rooms, in bell-towers, among the joists of barns, in the crannies of disused chimneys and unfrequented caves, and in the rotten hollows of forest trees. The smell of their haunt for hibernation, ¹⁴⁰ in the room (say) of some decayed and forsaken mansion,—a peculiarly ancient and vile pungent odour—is often a clue to their habitat, and their destruction. There they may be come upon in vast numbers, hanging in somnolent clusters from the projection or support to which they cling by their hind claws, head downwards, and wrapt in the ghoulish mantle of their skinny wings.

*Skeleton
and figure
of a Bat.*

A bat's skeleton shows a strange structure. The chest is strong and abnormally capacious; the fore ¹⁵⁰ limbs resemble arms and fingers, of disproportionate

development when compared with the weak-looking hind quarters: it is the appearance in miniature of the skeleton of a monkey. The whole figure, including the clawed wings and the ugly mouth and head, has been exaggerated and utilized by artists of the grotesque and the horrible to illustrate the forbidding shapes of demons and devils, such as haunt the cavern of a coveyne of witches, or such as infested the Valley
 160 of the Shadow of Death into which Christian adventured on his way to Vanity Town. The bat's only real connexion with the fancied supernatural is in those mysterious taps at the window which, in the absence of ivy or other twigs swaying in the night-wind, are often occasioned by some mousing bat lifting moths with scarcely a pause from the lighted pane.

The bat's connexion with darkness, its wavering and uncertain flight (as with the butterfly, its wing is
 170 its rudder), and its mysterious mode of life naturally combine in making the vulgar imagination associate it with supernatural agents of evil. Poetry and the bat had neither an obvious nor an abiding connexion till Shakespeare disclosed it. He has caught the attractive aspect of bat-life, and by one happy touch has for ever associated the bat with the warm dusk and luxurious repose of a typical summer evening, and with the joyous existence of Ariel (free at last of both Prospero and the pine-tree) circling on its furry
 180 back among the darkening splendours of sundown and singing :

On a bat's back I do fly
 After summer merrily.

EDITOR.

NOTES

LINE 15. *the best popular names.* Reremouse (or rearmouse), so called from the flapping movement of the bat's wings (A.S. *hréran*, to agitate); flitter-mouse = flutter-mouse.

159. *a covyne of witches.* An assembly or meeting of witches (Lat. *con*, and *venire* to come). [As a law-term 'covin', or 'covine', means secret agreement, or fraud.]

EXERCISES

1. What kinds of bats are found in our country? How do you distinguish them from one another?
2. Describe the habits, habitat, structure, &c. of the bat.
3. How is it proved that bats 'feel at a distance'?
4. Describe the poetical aspect of bat-life.
5. How has superstition arisen around the bat?

ARIEL'S SONG

WHERE the bee sucks, there suck I;
 In a cowslip's bell I lie:
 There I couch when owls do cry.
 On the bat's back I do fly
 After summer merrily.
 Merrily, merrily shall I live now
 Under the blossom that hangs on the bough.

SHAKESPEARE: *The Tempest*, v. i.

EXERCISES

1. Describe your idea of the joys of fairy life.
2. Give the history of Ariel.
3. What is the metre here? Why are trochees and dactyls preferred to iambytes?

THE SPARROW

IN ordinary estimation it is a common and worthless bird; but its commonness (which approaches ubiquity) is a triumph of evolution, and its worthlessness is only from a human point of view. The less it is valued by man, the more sparrowdom may rejoice. Worthlessness in the world's markets means immunity from service to human vanity, voracity, and pleasure. We neither eat it, nor wear its plumes, nor sequester it in a cage. Ask a sparrow if it is
 10 ambitious of a reputation among mankind for any of these ends. No! Let the canary, and the egret, and the goose (simpletons as they are!) boast of their sovereign price on the table, or in the hat, or behind the sugared wires. Jack Sparrow is as sensible as Sancho Panza, and has no aspirations in any of these directions. It is rather his glory that his marketable value touched its maximum quotation two thousand years ago at half a farthing.

Its commonness is proof of its adaptivity,—its
 20 ability to suit itself to its environments, change as it or they may. What other bird in the struggle which the great stepmother, Nature, has imposed upon her feathered charge for the attainment of the joy of merely living is, on the whole, altogether so successful? The dodo is dead; the eagle is disappearing; the crow is nothing so numerous, the robin scarcely half as hardy, as this triumph of avian evolution. It is the Dugald Dalgetty of birds, fit to go anywhere, feed upon everything, and fight against anything.
 30 It does not starve in the coldest, and it withstands the heat of the warmest, weather, anywhere from the

A common and worthless bird.

Its adaptivity.

Omnivorousness.

Arctic to the Equatorial circle. Where man goes it can go; goes uninvited, thieves and thrives, and multiplies. Any kind and quality of food will maintain it. Nothing digestible by living organism comes amiss to its accommodating gizzard. Green seeds and ripe grains, cooked crust or crumb, live crawler or insect, tissue of flesh or vegetable, raw or roasted, and in whatever degree of freshness or decay—they only give agreeable variety to its menu, and minister 40 to its all-round omnivorousness. Man is its servant

And independence.

and provider. It is not his dependent. It has no love for him, shows him no confidence, no gratitude; it does not entreat, but demands; does not beg, but takes. It steals or robs, making no secret of its practice or its intentions. Everything of his which it 'conveys', it conveys theftuously. Mark the delight with which it

steals from the barn a straw!

It eats his sown fields behind the sower, and his 50 waving crops before the reaper; pilfers from his barn, and shares their dole with his poultry; nor only is a pensioner upon his bounty, but battens upon his parsimony by abstracting a livelihood from his refuse, and finds a shelter from hawks and owls in his neighbourhood, and a habitation under his very eaves. For it is *his* chimney's smoke, and *his* tiles and spouts that it utilizes. His means are diverted to its ends. It has a knack of turning everything he builds or grows to its own use. Under these 60 happy conditions of circumstance and temperament it has necessarily grown common and become vulgar. No other bird—thrush or merle, pigeon or swallow—

Its ubiquity.

is so much in evidence among human settlements, whether in dense and smoky towns or at some windswept cottage, solitary among the moorlands. It is equally at home among the innumerable chimneys of Fleet Street and on the shepherd's single pair of cans in central Lammermuir. It has accompanied the
70 British emigrant to colonies in virgin lands at earth's remotest end, and it has followed in the track of the Siberian exile to his snow-draped hut among the solitudes of frozen Kamtchatka. If there is a bird sacred to the human household, it is the sparrow: the Roman Lares and Penates were not more intimate and abiding. No bird has so attached itself to man. Before he came on this mundane scene it managed somehow to live; its existence is assured since he came. And the wonder of its evolution from primitive
80 times to the present is increased when one considers that, apart from its acquired adaptivity to changing circumstances, its only outstanding physical endowment for the battle of life is its stout little conical beak. With only ordinary means at its disposal, it has learned from other birds many of their special accomplishments: water does not daunt it—it will
90 enter a stream or a pool for food like a wagtail; it will scramble up a tree trunk like a woodpecker, hang from a projection like a tit, pursue and take its prey on the wing like a swift. It is as fond of a water-bath as a coot, and of a dust-bath as a partridge; it can rear a protective dome as well as a wren or a dipper, when the tiles are crowded and it takes to a tree; and it builds a winter-house for itself in October, furnishing it with feathers. One thing it has not yet learned, though it daily sees the

Its stout little conical beak.

Its various accomplishments.

usefulness of it to its clever neighbours the tits—the art of using its claw to aid its beak in the act of appropriating.

Its usefulness to man.

It is, however, though only incidentally, undeniably ¹⁰⁰ useful to man, by devouring great quantities of insects, grubs, and small reptiles which, if it spared them, would do incalculable mischief to his crops. It is not easy to keep down, and is impossible of extermination, but it probably does much more good than evil. A heavy indictment of destructiveness has been drawn up against it, and it has been written down as 'a mischievous, cunning, and spiteful bird'; and it would be easy to get a jury of British farmers and fruit-growers to return a unanimous verdict that ¹¹⁰ would warrant a sentence for its extinction. Something, however, could be said in its defence. They tried one year in France to do without the sparrow—and paid the year after a heavier tax to the caterpillar. They have let it alone since then, finding it to their profit to do so. Besides, they missed its cheerful chirrup, its smug personality, and the entertainment of its domestic and communal habits.

A born fighter!

Its pugnacity and resoluteness of defence, its amorousness and resource of productivity (the nest is ¹²⁰ scarcely ever without a brood all summer) have kept the species vigorously alive. Not in vain has it been called 'Venus' owne sone'. Its love seems to be commensurate with its hate. It hates heartily because it loves ardently. It fights in the dust, the bush, the air, and round the chimney-cans with the obstinacy and tenacity of a terrier. The presence of man hardly deters it. It will pursue its fight not only under his eyes, but among his feet. Quarrels with its kind

130 arise mostly on the subject of food and possession of
 its mate. It is its eager desire for both that chiefly
 fires it to fighting trim. During the pairing season
 there is nothing but 'bickers' all day through. And,
 like an Irishman in a 'row', it is as keen to take
 part in any scrimmage going as to contend in a per-
 sonal cause. A feature of a sparrow 'bicker' is the
 suddenness with which it ends. You would think,
 while it lasts, that the parties in it could not again
 coexist in the same parish, let alone the same house-
 140 top; but nothing of the sort. The community does
 not burst up; on the contrary, it resumes its sociality
 as if nothing had happened, or as if it had all been
 only a bit of diversion to relieve the monotony of life.
 It is, however, a sociality which at best is in a state
 of unstable equilibrium. The sudden rise of a 'row'
 in the sparrow-world is sometimes due to the presence
 of an intruder, who must by universal bird-law be
 beaten back to his own hunting area, often to the
 vanity of a young cock-bird, who must have his
 150 libertine presumption pecked out of him. A dead
 body or two is no infrequent consequence of these
 encounters, witnessing with mute eloquence to the
 whole-heartedness of the engagement.

The sparrow is universal. It has gone over sea
 with the emigrant—not always to his advantage. It
 is at the antipodes. It would be strange if it had not
 found its way into literature. The classics teach us
 that Aphrodite favoured the sparrow no less than she
 did swans and doves. And some of us have heard
 160 of Lesbia's grief for the loss of her passerine pet.
 But a more recent poet than Catullus has at greater
 length, if with less grace and in a way of his own

*The Spar-
 row in
 literature.*

(not unsuggestive of Burns's humour in his lament for his pet yowe), detailed for us the mingled feelings of an English Lesbia on a similar occasion. Her name was Jane Scrope, and it was when she was a novice of fifteen summers at Carowe Convent, in Norfolk, that 'Gyb, our cat' pounced upon her bird. Hence 'the sorrow she did make for Philip's sake'—for that was her name for her pet sparrow. Pleasant memories 170 mingled with her grief:

It had a velvet cap,
And would sit upon my lap;
And many times and oft
Between my breasts soft. . . .
Sometimes he would gasp
When he saw a wasp;
A fly or a gnat—
He would fly at that! . . .
And when I said Phip, Phip,
He would leap and skip
And take me by the lip.
Alas! it will me slo
That Philip is gone me fro.

180

Vengeance I ask, and cry
By way of exclamation
On all the whole nation
Of cats, wild and tame:
God send them sorrow and shame!
That cat specially
That slew so cruelly
My little pretty sparrow
That I brought up at Carow!

190

It would not be difficult to get on the sparrow's traces elsewhere, especially among the poets. But History has one notable page marked with its little

footprints. The scene is in Northumbria in ancient Edwin's day, and at a General Assembly convoked for the purpose of settling the national religion. 200 Paulinus may have been present, tall and pale and wasted, listening with peculiar interest to the debates. It was then that the aged ealderman of Bede's narrative spoke the famous sparrow simile :

‘ So seems to me the life of man, O king, as a sparrow's flight through the hall, when you sit at meat in winter-tide, with the warm fire lighted on the hearth, and the icy rainstorm battering without. The sparrow flies in at one door, and tarries for a moment in the light and heat of the hearth-fire; 210 then, flying forth through the other, vanishes into the darkness whence it came. So tarries for a moment the life of a man in our sight, but what is before it, or what after it, we do not know. Now, if this new religion tell us certainly of these things, let us receive it.’

The hedge-sparrow, popularly known on the female side as ‘Blue Jenny’, from her lovely eggs of fairy blue, is a wholly misnamed bird: it is no variety or relation of the true sparrow race, which it merely 220 resembles in size and markings. It should be known to the public as the hedge-accentor—but the name is not a taking one. It is soft-billed, modest, and almost timid; the common dupe of the cuckoo—which the true sparrow is too alert ever to be; and has a slight gift of song, which it publishes, from the top of a low twig, for local and limited circulation only. Its markings, though like those of *passer domesticus* on a casual glance, are yet on inspection very different from them.

The hedge-sparrow no true sparrow.

*Increase
of the tree-
sparrow.*

The tree-sparrow, however, is a true sparrow, and, ²³⁰ though smaller and lighter than the house-sparrow, may easily pass for one; and indeed it occasionally mates with the house-sparrow. It is a migrant, coming in numbers on a north-east wind in October; but is not so rare in summer as it, even recently, used to be.

NOTES

LINE 13. *sovereign price*. High reputation or value,—the goose for its flesh, the egret for its plumes, and the canary for its song. Cp. 'Evermore he hadde a sovereyn prys'—said of Chaucer's Knight in the Prologue to *The Canterbury Tales*.

15. *Sancho Panza*. A character in the romance of *Don Quixote*, attendant on the Don; distinguished for his practicality.

27. *avian evolution*. Bird development out of lower forms of life.

28. *Dugald Dalgetty*. A character in Scott's *Legend of Montrose*, very capable of looking after himself in all circumstances.

47. *conveys*. Steals. 'Convey the wise it call' says Pistol in *King Henry IV*.

69. *Lammermuir*. A range of pastoral hills in the south of East Lothian.

75. *Lares and Penates*. Roman household gods.

158. *Aphrodite*. Venus; sprung from the foam ('aphrós) of the sea.

161. *a more recent poet*. John Skelton (1460 ?-1529), author of 'The Death of Philip Sparrow', a sprightly poem of almost 1,400 lines, in which a young girl amuses her grief for the death of a pet sparrow by a thousand fancies and fond reminiscences.

161. *Catullus*. One of the best Roman lyric poets; born c. 84 B.C., died young—probably when he was about thirty. Lesbia was his poetical name for the lady with whom for a time he was passionately in love.

163. *Burns's pet yowe*. Yowe = ewe. The poems referred to are entitled 'The Death and Dying Words of Poor Mailie' (Mary), and 'Poor Mailie's Elegy': in these verses humour and pathos are combined in nearly equal degree, humour prevailing.

197. *ancient Edwin's day.* Edwin, Anglian King of Northumbria ; was born 585, and died 634 ; founded Edinburgh ; became a Christian, converted by the teaching of Paulinus, in 627.

200. *Paulinus.* Sent from Rome by Pope Gregory in 601 as a Christian missionary to England. He first taught in Kent under Augustine, afterwards in Northumbria, whither he went in the retinue of Ethelburga, the Christian bride of pagan King Edwin. Paulinus is regarded as the first of the Archbishops of York.

202. *Bede.* Born 673, died 735 ; spent all his life in the Monastery of St. Paul's at Jarrow-on-Tyne ; wrote an Ecclesiastical History of our Island and People, in Latin.

EXERCISES

1. Name some characteristics of the Sparrow.
2. Name some of its accomplishments.
3. Describe its relations to man ; and, as far as you can, account for them.
4. Mention, from your own observation, the differences in appearance, character, habit, nest and eggs, &c., between the house-sparrow and the hedge-sparrow.
5. What poets (four or five) refer to the Sparrow ? Can you give a reference to it in Shakespeare ?

THE SPARROW'S NEST

BEHOLD, within the leafy shade,
 Those bright blue eggs together laid !
 On me the chance-discovered sight
 Gleamed like a vision of delight.
 I started—seeming to espy
 The home and sheltered bed,
 The sparrow's dwelling, which, hard by
 My father's house, in wet or dry
 My sister Emmeline and I
 Together visited.

She looked at it and seemed to fear it,—
 Dreading, though wishing, to be near it :
 Such heart was in her, being then
 A little prattler among men.
 The Blessing of my later years
 Was with me when a boy :
 She gave me eyes, she gave me ears ;
 And humble cares ; and delicate fears ;
 A heart, the fountain of sweet tears ;
 And love, and thought, and joy.

20

W. WORDSWORTH.

[NOTE.—This poem was composed in 1801, when Wordsworth was in his thirty-first year. It is the hedge-sparrow that is referred to. By 'Emmeline' he means his sister Dorothy : by a similar use of poetical pseudonyms Wordsworth means his daughter Dora, and his son 'Johnnie', by 'Laura' and 'Edward' respectively. The devotion of Dorothy Wordsworth to her brother is well known to all who are familiar with the poet's history. There is no exaggeration in the description—so condensed yet so comprehensive—contained in the last six lines.]

THE KESTREL AND THE SPARROWHAWK

*The
 Kestrel
 our
 commonest
 bird of
 prey.*

WHEN a hawk is casually mentioned, the likelihood is that a kestrel is meant, for the kestrel is not only the commonest British variety of hawk, but is the commonest British bird of prey that flies in the sun. The sparrowhawk, though not uncommon, is not only less abundant, but is much less in evidence, as it flies swift and low among trees and bushes, and with such

sudden turns of flight with its short wings as to evade even vigilant notice.

10 Of these two kinds of hawk (popularly so called) *Kestrel*
the sparrowhawk may be in figure the handsomer *and Spar-*
fellow—with his fierce light-coloured eye, his smarter *rowhawk*
coat, and his barred breast showing like the braided *compared.*
stripes on the chest of a gallant hussar; but he has
neither the kingly style and range of flight of the
kestrel, whose dominion is the lofty and open sky,
nor is he the loyal ally and aid of man—as the kestrel
may fairly claim to be. The kestrel is, indeed, a
kingly sportsman, enjoying his life in the light of
20 heaven and in the sight of all, heedless or defiant of
observation; the sparrowhawk, on the other hand, is
a cunning and deadly poacher, dodging from view
among bushes and branches, and darting like a
detective from unsuspected quarters—a terror and
(with those terrible claws!) a destruction to the puny
panting tenants of the hedgerow and the downy
denizens of the poultry-yard. It was different in the
old hawking days when the sparrowhawk was the
trained retainer and wore the livery of man. But
30 times have changed; the service of the sparrowhawk
as gillie is no longer required, and his reputation
(with his occupation) is gone.

Seen on the wing in mid-sky, the kestrel manifests *The*
his connexion as a falcon with the kingly eagle, *Kestrel*
whose small viceroy, indeed, he is. It might have *a true*
been at the royal court that he acquired the grand *falcon—*
manner and bearing, his imitation of the kingly
style is so excellent. Only some twelve or, at most,
fifteen inches long, he yet looks like a lord of the sky,
40 from his easy assumption of dignity and ownership,

*a lord of
the sky—*

*and no
tyrant.*

as if a bird to the manner born. There is in his bold bearing no hurry of movement which is not spontaneous. He sails 'with supreme dominion through the azure deeps of air', and surveys their expanse and abyss around and beneath him with the glance of undisputed sovereignty. He stops without effort or restraint, and hovers even against a gale with perfect self-control, as if independent of the laws of nature—to drop at will to the ground plumb as a stone or a falling star, or to recover and continue his progress at ⁵⁰ a lower elevation. There is no greed or cruelty in his dark eye, which wears only a look of command. No tyrant is he: the smaller birds, of whom he takes tax, disport in his presence at respectful distance, but with scarcely any fear. And his talons, though strong, are not obtrusively bared, as if for bloodshed, and outstretched to gripe and crush, like those of the yellow-eyed sparrowhawk. He strikes, and takes, but not without warning. Compared with him, the sparrowhawk is a butcher. By the kestrel's removal ⁶⁰ there would be lost to the sky an ornament, and a display of graceful movement, which it is a delight and a lesson to look upon.

It is not in fierceness and in the fear which he inspires in the non-predacious birds, neither is it on the whole in his figure, that the kestrel shows his superiority to the sparrowhawk. It is in his disposition and in the style of his flight. Nobody with eyes need mistake the one bird for the other. Not only is the kestrel's leg shorter and stouter: he has ⁷⁰ a much longer wing; he has the distinctive mark of the falcon's tooth on each side of the upper mandible—a mark which the hawk wants; and his colours

and markings are different. His upper plumage is a dull chestnut brown, except that the head and tail are, if he is an old bird, of a pigeon-blue. The plumage of the under side is mostly of a fawn colour ; and the whole body is marked with dark spots or bars. The female and the young bird want the pigeon-blue on
 80 head and tail—otherwise they are similarly coloured and marked to the male, with the brown shade somewhat lighter. When perched, the kestrel occasionally presents the look of a parrot, what with his long tail, compact body, sagacious eye and beak, and round blunt head. The colours of the sparrowhawk, on the other hand, are slate-grey above and whitish-grey below. It is easily distinguished by the cinnamon transverse bars on breast and belly. These transverse
 90 bars, and other points of likeness, have made a confusion of it and the cuckoo in the country mind ; and, indeed, it is sometimes referred to (in old verse descriptive of the sport of hawking) as a cuckoo. If we consider figure and feathers only, the hawk is certainly a handsome bird ; but in its mode of life, its movements, and general demeanour, the kestrel is the sovereign bird. He puts forth from his nest, without the subterfuge of by-ways, boldly and at once into the wide arch of heaven, where, if the sun flash out, he shows red against the grey cloud or the blue sky.
 100 Small though he is, he seems to fill the circle of the heavens as he wheels with proud ease round the encompassing sky. There is a majesty in his movement which, once seen, is not forgotten. And his cry, which sounds like *teerie* or *keeyer*, is uttered as if with a passion of eager delight, strong, piercing, and repeated.

The Kestrel's markings.

The Sparrowhawk's.

The Kestrel the sovereign bird.

*The
Kestrel in
Falconry.*

A converted thief, they say, makes a clever detective, and a reclaimed poacher makes a good gamekeeper. For the same reason, it may be, the sparrowhawk, when disciplined and trained to the art of falconry,¹¹⁰ becomes the more efficient bird; and, in olden days, when the feudal Castle went forth a-hawking, it was more frequently promoted, with the adornment of hood and jess, to the gloved hand of lady fair. It was the prime favourite of the sporting abbot. The gerfalcon and the peregrine were for the wrist of the king or his peer; the goshawk rode with the knight; and as for the gentle kestrel, he was good enough for a boy-beginner of the noble art—whence his name, the coystril's hawk. Having a less passionate desire¹²⁰ for an avian quarry than the sparrowhawk, the kestrel was more difficult to train for the pursuit of birds, and was less to be depended on in maintaining the pursuit. And he had nothing of the keen love of sport, or rather of destruction, for its own sake which the peregrine either naturally possessed or could be trained to develop. Sir John Sebright testifies to the peregrine striking down birds merely for its amusement. 'I have seen one', he says, 'knock down and kill two rooks who were unlucky enough to cross his¹³⁰ flight, without taking the trouble to look at them after they fell.' The kestrel, and more particularly the sparrowhawk, have been taught by careful training to perform remarkable feats in the capture and slaughter of smaller birds, such as partridges, pigeons, larks, and thrushes; but it is to be noted that in a state of nature, while the sparrowhawk continues for his own beak or nest the habits to which in olden times he was broken for his owner's pouch and table,

140 the kestrel is inclined to the rule of *Live and let live*, and, unless necessity demands it, spares the life of the little bird—which may often be seen disporting without dread and unmolested in his near neighbourhood. Instances, indeed, are not so very rare of the kestrel's nest being found on the same spreading tree on the lower branches of which woodpecker, starling, or even pigeon finds a safe abode.

The tribute which the kestrel claims from earth and air is no loss to man, lord or loon. On the contrary, *The Kestrel's menu.*
150 it is levied at the expense of the petty foes that carry on a secret and insidious warfare against the wealth and welfare of man—the inimical, innumerable microscopic pests of field and farm, difficult from their very diminutiveness to cope with. His friendly alliance to the interests of man, long unknown, is now pretty generally acknowledged. It is only by a narrowing circle of gamekeepers that the acknowledgement is withheld. Let us look at the kestrel's menu. The female kestrel (which, by the way, is larger—about
160 three inches longer—than the male) takes insects, upon which her young (almost till they can help themselves) are very largely fed. Both male and female take small birds, such as the farmer can well spare when the barley is ripening and the oats are mature; but their chief food is lifted from the ground, in the form of destructive beetles, adders which sting the sheep, rats, and especially field-mice and voles which, if unchecked, are capable of devastating whole parishes. Altogether, the occasional conveyance of a
170 young pheasant, or a chicken, so fresh from the shell as to be scarcely conscious of its privileges above those of a bunting, may easily count for a friendly

appropriation that only betokens intimacy and good neighbourhood, in view of the immense service done for man by the kestrel. The bird deserves protection; but, at least, its useful work is now generally recognized by intelligent sportsmen and landowners, though even yet, from inveterate habit, a blundering gamekeeper metes out to the unhappy bird a shower of lead pellets by way of reward for its services. It is ¹⁸⁰ to the sparrowhawk that the keeper should transfer his whole attention, the depredations of that poaching bird seriously affecting the fortunes of both game and poultry. For *his* sins the whole of the smaller falcon tribe have been made to suffer.

Nesting-site, nest, eggs, and young.

The nest of the kestrel is sometimes built in a tree, and, truth to tell, he is more inclined to appropriate an old nest, the creation and property of some other bird, crow or pigeon, than have the trouble of constructing one for himself. But his usual nesting-site ¹⁹⁰ is in the crevice of some beetling cliff or inaccessible rock, or among the ruins of some forsaken castle or other high building. He thus seems to share in the eagle's preference for a solitary abode. The sparrowhawk likes rather the security of leafy woods, where, maugre the gamekeeper's watchful enmity, he lives like an Ishmaelite and thrives. If the sparrowhawk appropriates the nest of some other creature, crow, heron, or squirrel, it almost invariably uses it as a foundation for its own structure. Like most birds of ²⁰⁰ prey, both the kestrel and the sparrowhawk are easily served with a house: the nest of either is, at best, a sorry structure, being little more than a loose platform of sticks or roots; and, in the case of the kestrel, even this meagre apology for a nest is occasionally

dispensed with, the female depositing her eggs in a rocky depression or stone hollow destitute of furnishing of any kind. The young have thus a Spartan upbringing. The clutch for both birds is usually four
210 or five; and the eggs are about the same size, but the markings differ. The hen-kestrel's egg is a close-mottled red all over, while the hen-hawk's is a bluish-white with reddish-brown blotches. The young of both birds are voracious, long helpless, and require the constant ministration of their parents. There is one brood a year. The mother birds, which are fiercer as well as larger than the males, show remarkable affection in feeding and (if need be) in defending their nestlings, even against human aggression. It is
220 recorded that a sparrowhawk's nest was found to contain a store of 'sixteen larks, sparrows, and other small birds', all fresh meat, and probably purveyed for the wants of a single day. It happens that the young are quite ready to cater for themselves just when the harvest fields are beginning to be bare, and linnets and mice are easily observed and abundant. Both kestrels and sparrowhawks are to a considerable extent migratory, in point of numbers and of area as well, but individuals are found with us the whole
230 year round. The shifting of quarters takes place in the autumn, and the return begins early in spring. Nesting, however, is late. A favourite winter resort of the kestrel is the sea-coast. A tame kestrel is as amusing and quite as companionable a pet as a dog. It comes readily through the air to its master's call, perches familiarly on his shoulder, and looks and listens with apparent intelligence.

Our earlier literature draws much of its imagery

The Hawk in literature. from the now nearly abandoned science and practice of hawking. Shakespeare, for example, refers or alludes scores of times to the ancient sport. Without some notice of it, no description of mediæval times would be complete. It was with the sole companionship of a sparrowhawk, the gift of the Abbot of Aberbrothick, that Quentin Durward, at the age of twenty, set forth on his adventures in Flanders and France. On it he must often have depended for his dinner; and it will be remembered how sadly he deplored its death at the hands of a Burgundian 'skellum'. The story of Ser Federigo and the Falcon is also well known, as told in Longfellow's *Tales of a Wayside Inn*.

EDITOR.

NOTES

LINE 43. *He sails with supreme dominion, &c.* The quotation is from Gray's Pindaric Ode, *The Progress of Poesy*, iii. 3: Alluding to himself the poet says—

Oh! Lyre divine, what daring spirit
Wakes thee now? tho' he inherit
Nor the pride nor ample pinion
That the Theban Eagle bear
Sailing with supreme dominion
Through the azure deep of air, &c.

48. *independent of the laws of nature.* E. gr., gravitation.

196. *lives like an Ishmaelite.* Of Ishmael, son of Hagar, it was foretold that his hand would be against every man and every man's hand against him. See *Genesis*, xvi. 12.

208. *a Spartan upbringing.* The reverse of being pampered. The children of ancient Sparta were brought up by the State; and developed, through rigorous discipline, into a breed of hardy warriors. No unnecessary indulgence was allowed them.

249. *a Burgundian skellum.* See Scott's Novel, *Quentin Durward*, Chap. II: 'The rascally schelm shot my bird with an arrow.' The Scots form of 'schelm' (= rascal) is 'skellum'—used by Burns in his tale of *Tam o' Shanter*.

EXERCISES

1. Distinguish between a Sparrowhawk and a Kestrel in respect (1) of structure, (2) of colour and markings, (3) of flight, and (4) of disposition and habits.

2. Which is the more useful bird? When was the Sparrowhawk more highly prized than the Kestrel? and Why?

3. Sketch the story of Ser Federigo and the Falcon, as told by Longfellow (following Boccacio).

KING KESTREL

A BALLAD OF THE BIRDS

OF all birds that do fare through the fields of the air,
And grace to the heavens that do bring,
There is none that will dare with the kestrel compare,
For the kestrel—the kestrel's a king.

The swan forges high with a jubilant cry,
The heron takes the lift¹ with a swing;
The whaup², and the snipe, and the plover can pipe,
But the kestrel—the kestrel's a king.

From the breast of the cloud, with his minstrelsy loud,
10 The lark of a morning can sing;
Or the blackbird and thrush from the heart of a bush,
But the kestrel—the kestrel's a king.

¹ sky.

² curlew.

To the point of a larch the storm-cock¹ in March,
With a song in his throat he will cling;
And the red-breasted bird in the snows shall be heard,
But the kestrel—the kestrel's a king.

The peewit is sly, and flaps round the sky,
And the goose travels high in a string,
While the gull and the crow² are in crowds down
below,
But the kestrel—the kestrel's a king.

20

The kingfisher rare illumines the air;
And the cuckoo is welcome in Spring;
And the owl is a fowl that in darkness doth prowl,
But the kestrel—the kestrel's a king.

He skims all around 'twixt the sky and the ground,
And red is the flash of his wing;
Or he stoops from his pitch without ever a hitch,
For the kestrel—the kestrel's a king.

He looks from the sky with command in his eye,
He hovers, or sails in a ring;
Then aloft or alow, all ways he can go,
For the kestrel—the kestrel's a king.

30

No tyrant is he, but open and free;
He darts like a stone from a sling,
And the little birds see when he's coming, and flee;
For the kestrel—the kestrel's a king.

The sparrowhawk hides by the hedgerow-sides,
And leaps at his prey with a spring,
But the kestrel's advance gives the linnet a chance,
For the kestrel—the kestrel's a king.

40

¹ *missel-thrush.*² *rook.*

THE ECHOES OF SELBORNE

IN a district so diversified as this, so full of hollow vales and hanging woods, it is no wonder that echoes should abound. Many we have discovered that return the cry of a pack of dogs, the notes of a hunting-horn, a tunable ring of bells, or the melody of birds very agreeably; but we were still at a loss for a polysyllabical articulate echo, till a young gentleman, who had parted from his company in a summer evening walk, and was calling after them, stumbled
 10 upon a very curious one in a spot where it might least be expected. At first he was much surprised, and could not be persuaded but that he was mocked by some boy; but, repeating his trials in several languages, and finding his respondent to be a very adroit polyglot, he then discerned the deception.

This echo, in an evening before rural noises cease, would repeat ten syllables most articulately and distinctly. The last syllables of

Tityre, tu patulae recubans —

20 were as audibly and intelligibly returned as the first; and there is no doubt, could trial have been made, but that at midnight, when the air is very elastic, and a dead stillness prevails, one or two syllables more might have been obtained.

All echoes have some one place to which they are returned stronger and more distinct than to any other; and that is always the place that lies at right angles with the object of repercussion, and is not too near nor too far off. Buildings or naked rocks re-echo
 30 much more articulately than hanging woods or vales,

because in the latter the voice is as it were entangled and embarrassed in the covert, and weakened in the rebound.

The true object of this echo (as we found by various experiments) is a stone-built, tiled hop-kiln in Gally Lane, which measures in front forty feet, and from the ground to the eaves twelve feet. The true *centrum phonicum*, or just distance, is one particular spot in the King's Field, in the path to Norehill, on the very brink of the steep balk above the hollow 40 cart-way. In this case there is no choice of distance; but the path, by mere contingency, happens to be the lucky, the identical spot, because the ground rises or falls so immediately, if the speaker either retires or advances, that his mouth would at once be above or below the object.

We measured this polysyllabical echo with great exactness, and found our distance is two hundred and fifty-eight yards, or near seventy-five feet to each syllable. But, when experiments of this sort are 50 making, it should always be remembered that weather and the time of day have a vast influence on an echo; for a dull, heavy, moist air deadens and clogs the sound, and hot sunshine renders the air thin and weak and deprives it of all its springiness, and a ruffling wind quite defeats the whole. In a still, clear, dewy evening, the air is most elastic; and perhaps the later the hour the more so.

One should have imagined that echoes, if not entertaining, must at least have been harmless and 60 inoffensive; yet Virgil advances a strange notion that they are injurious to bees. This wild and fanciful assertion will hardly be admitted by the philosophers

of these days, especially as they all now seem agreed that insects are not furnished with any organs of hearing at all. But, if it should be urged that, though they cannot hear, yet perhaps they may feel the repercussion of sounds, I grant it is possible they may. Yet that these impressions are distasteful or
70 hurtful I deny, because bees, in good summers, thrive well in my outlet, where the echoes are very strong; for this village is another Anathoth, a place of responses or echoes. Besides, it does not appear from experiment that bees are in any way capable of being affected by sounds: for I have often tried my own with a large speaking-trumpet held close to their hives, and with such an exertion of voice as would have hailed a ship at the distance of a mile, and still these insects pursued their various employments un-
80 disturbed, and without showing the least sensibility or resentment.

Should any gentleman of fortune think an echo in his park or outlet a pleasing incident, he might build one at little or no expense. For, whenever he had occasion for a new barn, stable, dog-kennel, or the like structure, it would be only needful to erect this building on the gentle declivity of an hill, with a like rising opposite to it, at a few hundred yards' distance; and perhaps success might be the easier ensured, could
90 some canal, lake, or stream intervene. From a seat at the *centrum phonicum* he and his friends might amuse themselves sometimes of an evening with the prattle of this loquacious nymph, of whose complacency and decent reserve more may be said than can with truth of every individual of her sex.

My friend who lives just beyond the top of the

down brought his three swivel guns to try them in my outlet, with their muzzles towards the Hanger, supposing that the report would have had a great effect; but the experiment did not answer his expectation. He then removed them to the alcove on the Hanger,—when the sound, rushing along the Lythe and Combwood, was very grand: but it was at the Hermitage that the echoes and repercussions delighted the hearers,—not only filling the Lythe with the roar, as if all the beeches were tearing up by the roots; but, turning to the left, they pervaded the vale above Combwood-ponds, and, after a pause, seemed to take up the crash again, and to extend around Harteley-hangers, and to die away among the coppices and coverts of Ward-le-ham. It has been remarked before that this district is an *Anathoth*, a place of responses and echoes, and therefore proper for such experiments; we may further add that the pauses in echoes, when they cease and yet are taken up again, like the pauses in music, surprise the hearers, and have a fine effect on the imagination.

GILBERT WHITE.

NOTES

LINE 1. *In a district so diversified.* For a description of the parish of Selborne, see *ante*, p. 16.

15. *adroit polyglot.* Clever linguist.

19. *Tityre, tu patulae recubans* (sub tegmine fagi) = 'You, Tityrus, reclining in the shadow of a spreading beech': the first line of Virgil's first Eclogue.

65. *insects not furnished with any organs of hearing at all.* It is now believed that the ear is not the only organ of hearing; but that probably some insects hear with their antennae, and that the serpent hears with its 'double tongue'.

72. *Anathoth.* The word, as stated in the text, means the

place of responses and echoes. The city of this name was about three miles north from Jerusalem, and was famous as the birth-place of the prophet Jeremiah (*Jer.* i. 1). Good building-stone is still to be found in the neighbourhood.

93. *this loquacious nymph, &c.* He means that Echo never begins a conversation and that her tone is never an aggravation of your own. Of course, she must have 'the last word'.

98. *my outlet.* Park, or enclosure, near dwelling-house.

EXERCISE.

What instances of humour (conscious or unconscious) have you observed in reading this account of the Echoes of Selborne?

JOANNA'S ROCK

As it befell,

One summer morning we had walked abroad
At break of day, Joanna and myself.
'Twas that delightful season when the broom,
Full-flowered, and visible in every steep,
Along the copses runs in veins of gold.
Our pathway led us on to Rotha's banks;
And, when we came in front of that tall rock
That eastward looks, I there stopped short—and stood
10 Tracing the lofty barrier with my eye
From base to summit; such delight I found
To note in shrub and tree, in stone and flower,
That intermixture of delicious hues,
Along so vast a surface, all at once,
In one impression, by connecting force
Of their own beauty, imaged in the heart.

When I had gazed perhaps two minutes' space,
Joanna, looking in my face, beheld
That ravishment of mine, and laughed aloud.

The Rock, like something starting from a sleep, 20
Took up the Lady's voice, and laughed again ;
That ancient woman seated on Helm-crag
Was ready with her cavern ; Hammar-scar,
And the tall Steep of Silver-how, sent forth
A noise of laughter ; southern Loughrigg heard,
And Fairfield answered with a mountain tone ;
Helvellyn far into the clear blue sky
Carried the Lady's voice,—old Skiddaw blew
His speaking-trumpet ;—back out of the clouds
Of Glaramara southward came the voice ; 30
And Kirkstone tossed it from his misty head.

Now, whether this in simple truth were but
A work accomplished by the brotherhood
Of ancient mountains, or my ear was touched
With dreams and visionary impulses
To me alone imparted, sure I am
That there was a loud uproar in the hills.
And, while we both were listening, to my side
The fair Joanna drew, as if she wished
To shelter from some object of her fear. 40

And hence, long afterwards, when eighteen moons
Were wasted, as I chanced to walk alone
Beneath this rock, at sunrise, on a calm
And silent morning, I sat down, and there,
In memory of affections old and true,
I chiselled out in these rude characters
Joanna's name deep in the living stone :
And I, and all who dwell by my fireside,
Have called the lovely rock JOANNA'S ROCK.

W. WORDSWORTH.

[NOTE.—The above lines are part of one of Wordsworth's Poems on the Naming of Places, published in the end of 1800. They were composed in August of that year, when the poet was in residence at Grasmere. Joanna was the sister of Mary Hutchinson, the poet's wife (1802). The description of Joanna's laugh is, of course, imaginative, and was probably suggested by a similar extravagance of description in Drayton's *Polyolbion*, xxx, ll. 155–64.—The inscription on the rock has not been discovered; but the rock itself is identified as part of Helm-crag, the 'impressive single mountain at the head of the Vale of Grasmere', part of which 'bears a striking resemblance to an old woman cowering'. The other mountains mentioned are all quite near, or not very far from, Grasmere Vale. The Rotha is the stream that flows through Grasmere and Rydale lakes, and falls into Windermere a little below Ambleside.]

ECHOES AMONG THE ALPS

DURING A THUNDERSTORM AT NIGHT

THE sky is changed! and such a change! O Night,
 And Storm, and Darkness, ye are wondrous strong,
 Yet lovely in your strength—as is the light
 Of a dark eye in woman! Far along,
 From peak to peak, the rattling crags among,
 Leaps the live thunder! not from one lone cloud,
 But every mountain now hath found a tongue;
 And Jura answers through her misty shroud
 Back to the joyous Alps who call to her aloud!

10 And this is in the night. Most glorious Night,
 Thou wert not sent for slumber! let me be
 A sharer in thy fierce and far delight,
 A portion of the tempest and of thee!

How the lit lake shines, a phosphoric sea !
 And the big rain comes dancing to the Earth !
 And now again 'tis black ; and now, the glee
 Of the loud hills shakes with its mountain-mirth
 As if they did rejoice o'er a young Earthquake's birth.

LORD BYRON.

[NOTE.—These two magnificent stanzas from *Childe Harold's Pilgrimage* are very characteristic of Byron's genius and poetical power. They describe the thunderstorm at midnight of June 13, 1816. Perhaps there is a straining of language in making 'the glee of the hills shake with mirth'.]

EXERCISE

Scan l. 14.

THE ECHOES OF KILLARNEY

THE splendour falls on castle walls
 And snowy summits old in story :
 The long light shakes across the lakes,
 And the wild cataract leaps in glory.
 Blow, bugle, blow, set the wild echoes flying,
 Blow, bugle ; answer, echoes, dying, dying, dying.

O hark, O hear ! how thin and clear,
 And thinner, clearer, farther going !

O sweet and far from cliff and scar

The horns of Elfland faintly blowing !

10

Blow, let us hear the purple glens replying :

Blow, bugle ; answer, echoes, dying, dying, dying.

TENNYSON.

[The short lyric, commonly known as 'the Bugle Song', is scarcely less popular than the earlier *Break, break, break*. It was suggested to Tennyson by the scenery, and especially by the

echoes, of Killarney, during his visit to the Irish lakes in 1848. It opens the fourth part of *The Princess*, into which it was introduced in the second edition (1850) of that long poem.— By 'the horns of Elfland' the poet means the echoes of the bugle heard in the distance like sounds from another world.— A 'scar' (scaur or skerry) means a steep bank or isolated rock.]

EARTHWORMS : THEIR VALUE TO VEGETATION

LANDS that are subject to frequent inundations are always poor ; and probably the reason may be because the worms are drowned. The most insignificant insects and reptiles are of much more consequence, and have much more influence in the economy of Nature, than the incurious are aware of ; and are mighty in their effect, from their minuteness, which renders them less an object of attention, and from their numbers and fecundity. Earthworms, though in appearance a small
10 and despicable link in the chain of Nature, yet, if lost, would make a lamentable chasm. For, to say nothing of half the birds, and some quadrupeds, which are almost entirely supported by them, worms seem to be great promoters of vegetation, which would proceed but lamely without them, by boring, perforating, and loosening the soil, and rendering it pervious to rains and the fibres of plants, by drawing straws and stalks of leaves and twigs into it ; and, most of all, by
20 throwing up such infinite numbers of lumps of earth called worm-casts, which (being passed through them) is a fine manure for grain and grass. Worms probably provide new soil for hills and slopes where the rain washes the earth away ; and they affect slopes, probably

to avoid being flooded. Gardeners and farmers express their detestation of worms,—the former because they render their walks unsightly, and make them much work ; and the latter because, as they think, worms eat their green corn. But these men would find that the earth without worms would soon become cold, hard-bound, and void of fermentation, and conse-³⁰quently sterile : and besides, in favour of worms, it should be hinted that green corn, plants, and flowers are not so much injured by them as by many species of coleoptera (scarabs) and tipulae (long-legs) in their larva or grub state, and by unnoticed myriads of small shell-less snails (called slugs), which silently and imperceptibly make amazing havoc in the field and garden.

These hints we think proper to throw out, in order to set the inquisitive and discerning to work.

A good monography of worms would afford much entertainment, and information at the same time, and would open a large and new field in natural history.

Worms work most in the spring, but by no means lie torpid in the dead months ; are out every mild night in the winter,—as any person may be convinced that will take the pains to examine his grass-plots with a candle ; and are very prolific.

GILBERT WHITE.

[NOTE.—The date of this Letter (xxxv in *The Natural History of Selborne*) is May 20, 1777. The subject has been carefully treated by Charles Darwin, who is believed to have received from this Letter the suggestion for his work on Earthworms.—Scarabs and long-legs are beetles and crane-flies.]

EXERCISE

Re-write the third sentence (beginning l. 9) in better English.

FLY-FISHING FOR TROUT

Time. 9 a.m. of a Morning in May.

Place. Under a Sycamore-tree by the side of a stream in England.

Persons. Piscator (Izaak Walton) and Venator (his disciple).

Pisc. I shall now give you some directions for fly-fishing. First, let your rod be light, and very gentle: I take the best to be of five pieces. And let not your line exceed, especially near the hook, three or four hairs at the most; though you may fish a little stronger above in the upper part of your line. But, if you can attain to angle with one hair, you shall have more rises and catch more fish. Now, you must be sure not to cumber yourself with too long a line, as most do.

10 And, before you begin to angle, cast to have the wind on your back; and the sun (if it shines) to be before you; and to fish down the stream; and to carry the point or top of your rod downward,—by which means the shadow of yourself, and rod too, will be the least offensive to the fish, for the sight of any shade amazes the fish, and spoils your sport, of which you must take great care. In the middle of March (till which

20 time a man should not in honesty catch a trout), or in April, if the weather be dark or a little windy or cloudy, the best fishing is with the palmer worm (or caterpillar). But the May-fly is the ground of all fly-angling. I confess no direction can be given to make a man of a dull capacity able to make a fly well; and yet I know that some directions with a little practice will help an ingenious angler in a good degree. But to see a fly made by an artist in that

kind is the best teaching to make it. And then, an ingenious angler may walk by the river, and mark what flies fall on the water that day, and catch one of them, if he sees the trout leap at a fly of that kind; ³⁰ and then,—having always hooks ready hung with him, and having a bag also always with him, with the necessary materials to make the body of the fly, and to make the fly's head,—trying to make a fly, though he miss at first, yet shall he at last hit it better, even to such a perfection as none can well teach him. And, if he hit to make his fly right, and have the luck to hit also where there is store of trouts, a dark day, and a right wind, he will catch such store of them as will encourage him to grow more and more in love ⁴⁰ with the art of fly-making.

Ven. But, my loving master, if any wind will not serve, then I wish I were in Lapland, to buy a good wind of one of the honest witches that sell so many winds there, and so cheap.

Pisc. Marry, scholar! but I would not be there; nor indeed from under this tree. For look how it begins to rain! and by the clouds, if I mistake not, we shall presently have a smoking shower: and therefore sit close; this sycamore-tree will shelter us. ⁵⁰ And I will tell you, as they shall come into my mind, more observations of fly-fishing for trout. But, first, for the wind: you are to take notice that, of the winds, the south wind is said to be the best. One observes that, 'when the wind is south, it blows your bait into a fish's mouth.' Next to that, the west wind is believed to be the best; and, having told you that the east wind is the worst, I need not tell you which wind is the best in the third degree. And yet,

60 as Solomon observes, he that considers the wind shall never sow : so he that busies his head too much about them, if the weather be not made extreme cold by an east wind, shall be a little superstitious ; for, as there is no good horse of a bad colour, so I have observed, if it be a cloudy day and not extreme cold, let the wind sit in what corner it will, and do its worst, I heed it not. And yet take this for a rule, that I would willingly fish standing on the lee-shore. But I promised to tell you more of the fly-fishing for a
70 trout ; which I may have time enough to do, for you see it rains May butter. First for a May-fly : you may make his body with greenish-coloured crewel, or willowish colour, darkening it in most places with waxed silk, and such wings for the colour as you see the fly to have at that season, nay, at that very day, on the water. And let me tell you that you keep as far from the water as you can possibly, whether you fish with a fly or worm ; and fish down the stream. And, when you fish with a fly, if it be possible let no
80 part of your line touch the water but your fly only ; and be still moving your fly upon the water, or casting it into the water, you yourself being always moving down the stream.—And now, scholar, the shower is ended, for it has done raining. And now look about you, and see how pleasantly that meadow looks ; nay, and the earth smells as sweetly too. Come, let me tell you what holy Mr. Herbert says of such days and flowers as these ; and then we will thank God that we enjoy them, and walk to the river
90 and sit down quietly and try to catch the other brace of trouts.

catches. And let me tell you this kind of fishing with a dead rod is like putting money to use; for they both work for the owners when they do nothing but sleep, or eat, or rejoice—as you know *we* have done this last hour; and sat as quietly and as free from cares under this sycamore as Virgil's Tityrus and his Meliboeus did under their broad beech-tree.

130 No life, my honest scholar, no life so happy and so pleasant as the life of a well-governed angler; for, when the lawyer is swallowed up with business, and the statesman is preventing or contriving plots, then we sit on cowslip-banks, hear the birds sing, and possess ourselves in as much quietness as these silent silver streams which we now see glide so quietly by us. Indeed, my good scholar, we may say of angling as Dr. Butler said of strawberries—‘Doubtless God could have made a better berry, but doubtless God
140 never did.’ And so, if I might be judge, God never did make a more calm, quiet, innocent recreation than angling. I’ll tell you, scholar, when I sat last on this primrose-bank, and looked down these meadows, I thought of them as Charles the Emperor did of the city of Florence, that they were too pleasant to be looked on but only on holidays.—But come! now it hath done raining, let’s stretch our legs a little in a gentle walk to the river, and try what interest our angles will pay us for lending them so long to be used
150 by the trouts—lent them, indeed, like usurers, for our profit and their destruction.

Ven. Oh me! look you, master! a fish! a fish! Oh, alas! master; I have lost her.

Pisc. Ah! Marry, sir, that was a good fish indeed! If *I* had had the luck to have taken up that rod, then

it is twenty to one he should have—not broken my line, by running to the rod's end as *you* suffered him. I would have held him within the bent of my rod,—unless he had been fellow to the great trout that is near an ell long, which was of such a length and ¹⁶⁰ depth that he had his picture drawn, and now is to be seen at mine host Rickabie's, at *The George* in Ware; and, it may be, by giving that very great trout the rod, that is, by casting it to him into the water, I might have caught him at the long run; for so I use always to do when I meet with an overgrown fish. And you will learn to do so too hereafter, for, I tell you, scholar, fishing is an Art—or, at least, it is an art to catch fish.

Ven. But, master, will this trout which I had a hold ¹⁷⁰ of die? for it is like he hath swallowed the hook.

Pisc. I will tell you, scholar, that, unless the hook be fast in his very gorge, 'tis more than probable he will live; and a little time, with the help of the water, will rust the hook, and it will wear away.

Ven. Master, do not trouts see us?

Pisc. Yes, even in the night (for there is night- as well as day-fishing for trout), and hear, and smell too, both then and in the daytime. And you are to note that the great old trout is both subtle and fearful, ¹⁸⁰ and lies close all day, and does not usually stir out of his hold; but lies in it as close, in the day, as the timorous hare does in her form: for the chief feeding of either is seldom in the day, but usually in the night; and then the great trout feeds very boldly. And now I shall tell you that which may be called a secret: I have been a-fishing with old Oliver Henly (now with God), a noted fisher both for trout and

salmon, and have observed that he would usually
190 take three or four worms out of his bag, and put them
into a little box in his pocket, where he would usually
let them continue half an hour, or more, before he
would bait his hook with them. I have asked him
his reason, and he has replied he did but pick the best
out to be in readiness against he baited his hook the
next time; but he has been observed, both by others
and myself, to catch more fish than I, or any other
body that has ever gone a-fishing with him, could do;
and especially salmons. And I have been told lately,
200 by one of his most intimate and secret friends, that
the box in which he put those worms was anointed
with a drop (or two, or three) of the oil of ivy-berries,
made by expression or infusion; and told that, by
the worms remaining in that box an hour (or a like
time) they had incorporated a kind of smell that was
irresistibly attractive, enough to force any fish within
the smell of them to bite.—But now, let's again go
and see what interest the trouts will pay us for
our angle-rods lying so long and so quietly in the
210 water for their use. Come, scholar! which will you
take up?

Ven. Which you think, master.

Pisc. Why, you shall take up that! for I am
certain, by viewing the line, it has a fish at it. Look
you, scholar! well done! Come, now take up the
other too—well! now you have caught a leash of
trouts this day.—And now let's move towards our
lodging, and drink a draught of red-cow's milk as we
go, and give the pretty milkmaid and her honest
220 mother a brace of trouts for their supper.

Ven. Master, I like your motion very well; and

I think it is now about milking-time. And yonder they be at it!

The Compleat Angler.

NOTES

[Izaak Walton, author of *The Compleat Angler, or The Contemplative Man's Recreation*, the best technical treatise in the language, was born in 1593, and lived on to the great age of ninety. He was thus for the first twenty-three years of his life contemporary with Shakespeare. He retired from business in London (where he had been a linen-draper) just as the Civil War of Charles I's time was beginning: he was then about fifty years of age; and he devoted the rest of his long life to his favourite pursuit of angling. He thus enjoyed 'the blessing of St. Peter's Master' and an escape from the bustle of civil war. His book was published in 1653: in 1676, when it was in its fifth edition, Charles Cotton (to whom Walton was 'the best and the truest friend ever man had') contributed to its pages a second part, a treatise on fly-fishing. Both before and after the appearance of *The Compleat Angler*, Walton wrote some short biographies, of such men as Donne and Wotton, Hooker and Herbert. Whatever he wrote reveals his own personality; but more especially is the revelation made in his book on angling. This ever fresh and popular book presents him as a person singularly cheerful, suave, and even-minded. His style is pleasant, light, and easy; and the atmosphere around him is that of rural England in May.]

LINE 12. *fish down the stream.* Most anglers nowadays would dispute this direction, on the ground that trout when feeding lie looking up the stream.

17. *middle of March.* Old Style, and therefore thirteen days later now. The change to New Style was made September 3, 1752, that day being counted as the fourteenth. Since then two more days have been added to the difference, 1800 and 1900 not being considered as leap years.

20. *the palmer worm.* So named, as Walton himself informs us, from its wandering about like a palmer (or pilgrim from the Holy Land). He describes it as 'not contenting itself with any

one certain place for its abode, nor any certain kind of herb or flower for its feeding'.

43. *buy a good wind*. The superstition that Lapland witches sold winds to seamen is a well-known tradition. Sir Walter Scott knew an old woman at Stromness in 1814 who 'sold winds' at sixpence each.

46. *Marry!* For 'By Mary'! This petty oath was for many years a survival from Roman Catholic times.

60. *as Solomon observes*. Ecclesiastes, xi. 4.

71. *rains May butter*. A shower that benefits the pasture.

87. *holy Mr. Herbert*. The Rev. George Herbert, parson of Bemerton, near Salisbury, author of *The Temple*, a collection of religious and moral poems, of which the one quoted is a fine specimen. Walton wrote a life of Herbert.

115. *primitive Christians, &c*. In the first chapter of *The Compleat Angler* Walton writes: 'Of the apostles of our Saviour, four were simple fishermen. He never reprov'd them for their employment or calling, as He did the scribes and the money-changers. He found that the hearts of such men, by nature, were fitted for contemplation and quietness; men of mild, and sweet, and peaceable spirits, as indeed most anglers are.'

122. *an even lay*. An even wager.

124. *putting money to use*. Laying it out to usury, or interest.

128. *Virgil's Tityrus, &c*. See Virgil's first Eclogue—

Tityre, tu patulae recubans sub tegmine fagi, &c.

138. *Dr. Butler*. Perhaps Dr. William Butler, physician and humorist, a contemporary of Walton's own. Fuller, in his *Worthies*, speaks of him as the Æsculapius of his age. He belonged to Suffolk.

144. *Charles the Emperor*. Charles V (1500-58). His great victory in Italy was at Pavia, over Francis I, in 1525.

150. *our profit and their destruction*. The allusion is to the ruinous rates of interest charged by money-lenders (usurers).

160. *an ell long*. Forty-five inches.

162. *at The George*. An inn with the figure of *St. George* for sign. A 'George', part of the insignia of a Knight of the Garter, is a pendant with the figure of St. George in relief.

168. *fishing is an Art.* In an earlier conversation Venator had said that, if angling was an art, 'doubtless it was an easy one.'

218. *a draught of red-cow's milk.* The milk of a brown (red) cow was formerly regarded as a sovereign specific for consumption.

221. *your motion.* Your proposal.

EXERCISES

1. Describe an Angling Excursion.
2. What have other writers said for or against angling as a sport? [Thomson, Byron, &c.]
3. How do Walton's directions for angling differ from ours? Write out a list of twelve directions in which we agree with him.
4. What advantages (if any) has angling over any other sport involving the destruction of animal life?

SHAKESPEARE'S DESCRIPTION OF A HORSE

Look when a painter would surpass the life

In limning out a well-proportioned steed,
His art with nature's workmanship at strife,

As if the dead the living should exceed:
So did this horse excel a common one

In shape, in courage, colour, pace, and bone.

Round-hoofed, short-jointed, fetlocks shag and long,

Broad breast, full eye, small head, and nostrils wide,
High crest, short ears, legs straight and passing strong,

Thin mane, thick tail, broad buttock, tender hide: ¹⁰
Look, what a horse should have he did not lack,
Save a proud rider on so proud a back.

Sometime he scuds far off, and there he stares;

Anon he starts at stirring of a feather;

To bid the wind a base he now prepares,

And, whether he run or fly, they know not whether;

For through his mane and tail the high wind sings,

Fanning the hairs, that wave like feathered wings.

Imperiously he leaps, he neighs, he bounds;

20 And now his woven girths he bursts asunder;

The bearing earth with his hard hoof he wounds,

Whose hollow womb resounds like heaven's thunder;

The iron bit he crushes 'tween his teeth,

Controlling what he was controllèd with.

His ears up-pricked, his braided hanging mane

Upon his compassed crest now stands on end;

His nostrils drink the air, and forth again

As from a furnace vapours doth he send;

His eye, which scornfully glisters like fire,

30 Shows his hot courage and his high desire.

Sometime he trots, as if he told the steps,

With gentle majesty and modest pride;

Anon he rears upright, curvets, and leaps

As who should say *Lo, thus my strength is tried* :

What reckoneth he his master's angry stir?

What cares he now for curb or pricking spur?

Venus and Adonis.

NOTES

[Shakespeare's fame began with his Poems, of which the first to be published was *Venus and Adonis*, in 1593. Like the comedy of *The Midsummer-Night's Dream*, it is full of evidence of the poet's intimate knowledge of country sights.]

LINE 15. *To bid the wind a base.* To challenge the wind to

a race.—Prison-base, or prisoners' base, is a common rustic game in which a player stands between the bases (or goals), and tries to touch the others as they run past.

16. *they*. The onlookers.

26. *Upon his compassed crest*. That encompasses his crest.—The reference is to the upper portion of the mane, which is sometimes pleated or braided.

31. *told the steps*. Counted the steps, deliberately.

34. *As who should say, &c.* Like one giving proof of his strength.

EXERCISES

1. Indicate the 'points' of a good horse from your own knowledge, and from recollection of this description.

2. From this description what inference would you draw as to Shakespeare's 'nature' knowledge, acquired in his youth in the fields around Stratford? What other evidences of a country training does he elsewhere show? [Birds, flowers, &c.—found in Warwickshire.]

3. What other writers have described the horse. [Find descriptions of the horse in Scripture (Book of Job), Thomson's *Seasons* (Spring), &c.]

FRAGRANCE: ITS BENEFICIAL EFFECTS

It may be advanced as a general truth that all sweet smells are conducive to health. At least they are harmless.

Science has demonstrated in some detail the anti-septic properties of the essential oils of lavender, eucalyptus, clove, rosemary, and other plants; and their power to destroy bacteria has been tested with (in some cases) the most satisfactory results. We all believe, not without good reason, that the air of a sun-lit pinewood is not only pleasant in the nostrils, but is 10

highly advantageous to health in the lungs and the arteries, from the development of ozone ; and, indeed, the statement may be ventured of fragrant herbs of all kinds that, wherever the sun shines upon them, they express (as has been quaintly said) their *gratefulness* in health-giving ozone. Everybody knows the wonderful (because inexplicable) effect of lavender water, eau-de-Cologne, and attar of roses in driving off headaches, pacifying the agitated nerves, and invigorating
 20 the jaded mind. But even to robust people in steady health the effect of certain sweet odours is to stimulate the mental faculties and to give positive pleasure to their exercise. On temperament, too, they have beneficial influence. In counteracting or combating mental disease sweet odours may yet find a recognized place in practical pathology.

In one of his *Essays* Sir William Temple records the effect of a visit to the India House at Amsterdam. He and his party were among vast stores of all kinds
 30 of spicery—cloves, nutmegs, mace, cinnamon, &c.—and felt so relieved and recreated by the aromatic fragrance all round them as to enjoy for a long time afterwards an exaltation of good health and good humour much beyond their ordinary cheerful experience. Thereupon he wrote, lamenting the neglect of scents in modern physic. And John Evelyn was no less emphatic, and even waxed eloquent, in his advocacy of the odours of leaf and flower. It was he that soberly proposed to make London the healthiest and
 40 happiest city in Christendom by encompassing it with hedgerows of sweet briar, rosemary, jessamine, &c., and with plots of lilies, musk, and marjoram.

EDITOR.

NOTES

LINE 4. *antiseptic*. Counteracting putrefaction or decay. (Gr. *anti*, against, and *sēptós*, rotten.)

5. *essential*. Containing the chief quality of any substance.

6. *eucalyptus*. The blue or Australian gum-tree, a genus of evergreen laurels. (Gr. *eu*, well, and *kaluptós*, covered; the reference being to the hood by which the stamens are protected.)

7. *bacteria*. Very minute vegetable rod-like organisms. (Gr. *bakterion*, a little rod.) They are a kind of fungus, causing disease, and are often present in water or other fluids.

12. *ozone*. A form of oxygen perceived by its smell in the air after electrical discharges,—very healthful. (Gr. *ózōn*, smelling.)

15. *gratefulness*. Punningly (or quaintly) used here in its two senses of thankfulness (Lat. *gratiae*, thanks) and agreeableness (Lat. *gratus*, pleasing).

15. *express*. Literally to press out (or exhale), also means to utter (as in speaking); hence 'to express gratefulness' may mean 'to exhale a pleasant odour', or 'to acknowledge one's thankfulness', or both.

26. *pathology*. The science of suffering or disease. (Gr. *páthos*, suffering.)

27. *Sir William Temple*. Born 1628, died 1698; published *Essays* 1692, four in number, the best *On Gardens*. In respect of his style he may be looked upon as an earlier Addison. Swift in the earlier part of his life acted as Temple's secretary at Moor Park.

36. *John Evelyn*. Born 1620, died 1706; author of a well-known *Diary*, extending from 1641 to 1697 (though not printed till 1818). He wrote on a great variety of subjects, such as gardening, trees, salads, the earth, coins, commerce, &c. Less entertaining as a diarist than Pepys, who is better known, he was much more of a gentleman than his diverting contemporary. [Samuel Pepys, born 1633, died 1703.]

EXERCISES

1. Write an essay on scents or odours, under the following heads: (a) their associative power, or power to recall places,

persons, or events ; (b) the means or method you would take to distinguish with more or less definiteness among them ; (c) their peculiar effect upon certain animals (such as dogs, cats, &c.).

2. Compare the various pleasures derived by man from the senses of seeing, hearing, and smelling. How can the sense of smelling be cultivated ? What are the benefits of sweet scents ?

FOREST TREES

I. CHAUCER'S

WITH that my hand in his he took anon,
 From which I comfort caught, and went in fast ;
 But Lord ! I was so glad and well-begone !
 For all around, where'er mine eyes I cast,
 Were trees so clad in leaves that long should last,
 Each in his kind, of colour fresh and green
 As emerald, that joy it was to seen :—

The builder oak, and eke the hardy ash ;
 The pillar elm, the coffin for caraigne ;
 10 The boxtree piper ; holm, for a whip-lash ;
 The sailing fir ; the cypress, death to 'plain ;
 The shooter yew ; for shafts, the aspen plain ;
 The peaceful olive, and the drunken vine ;
 The victor palm ; the laurel, to divine.

CHAUCER : *The Parliament of Fowls*,
 (slightly modernized).

NOTES

[The poem was written, not later than 1382, in anticipation of the marriage of young King Richard II with Anne of Bohemia. It is an allegory of St. Valentine's Day.]

LINE 1. The poet is led in his dream into a walled park.

3. *well-begone*. Well pleased. (Cp. 'woe-begone'.)

6. *his*. Its. Before the introduction of 'its', in the seventeenth century, 'his' did duty both as masc. and as neut. in the poss. case of the third personal pronoun.

7. *to seen*. Before the introduction of the modern mark of the infinitive, 'to' before the verb, the sign of the infin. was the suffix or inflection -*n* or -*en* (for the more ancient -*an*): here, as elsewhere, Chaucer combines the two forms of the infinitive.

8. *The builder oak*. The oak used for the frames of houses.

9. *caraigne*. Corpse. (The O. North Fr. form was *caroigne*, Chaucer's form is *careyne*, the modern form is 'carrion'; from Lat. *caro*, flesh.)

10. *piper*. Fit for making pipes, flutes, &c. No wood can match the box for wind-instruments.

11. *sailing fir*. Pine fit for making masts for the sails of ships.—*death to 'plain*. With which to lament the dead.

12. *shooter yew*. The yew fit for bows for archery.—*shafts*. Arrows.—*plain*. Smooth.

14. *to divine*. To predict. A diviner was a seer or soothsayer. See Gen. xlv. 15: 'Wot ye not that such a man as I can certainly divine?'

[The measure of *The Parliament of Fowls* has been known as Rime Royal since King James I of Scotland's use of it in *The King's Quair*: its metrical symbol is 7 (5 xa), and the rime sequence is a b a b b c c.]

II. SPENSER'S

ENFORCED to seek some covert nigh at hand,
 A shady grove not far away they spied
 That promised aid the tempest to withstand;
 Whose lofty trees, y-clad with summer's pride,
 Did spread so broad that heaven's light did hide,
 Not pierceable with power of any star:
 And all within were paths and alleys wide,
 With footing worn, and leading inward far;
 Fair harbour that them seems, so in they entered are.

10 And forth they pass, with pleasure forward led,
 Joying to hear the birds' sweet harmony,
 Which, therein shrouded from the tempest dread,
 Seemed in their song to scorn the cruel sky.
 Much can they praise the trees so straight and high,—
 The sailing pine, the cedar proud and tall,
 The vine-prop elm, the poplar never dry,
 The builder oak—sole king of forests all,
 The aspen good for staves, the cypress funeral,

The laurel—meed of mighty conquerors
 20 And poets sage, the fir that weepeth still,
 The willow worn of forlorn paramours,
 The yew obedient to the bender's will,
 The birch for shafts, the sallow for the mill,
 The myrrh sweet-bleeding in the bitter wound,
 The warlike beech, the ash for nothing ill,
 The fruitful olive, and the platane round,
 The carver holm, the maple seldom inward sound.

Led with delight they thus beguile the way
 Until the blustering storm is overblown, &c.

The Fairy Queen, I. i. 7–10,
 (spelling modernized).

NOTES

[This part of the poem was written just about two centuries later than Chaucer's *Parliament of Fowls*. The first three Books of the *Fairy Queen* were published together in 1590. The measure is a development of Chaucer's eight-lined stanza (seen in the Monk's Tale) by the addition of an English (iambic) hexameter: metrical formula, 8 (5 xa) + 6 xa; rime, *ab ab bc bc c.*]

LINE 1, *seqq.* The poet is describing the adventures of Una and her champion, the Red-Cross Knight, on their way to rescue Una's parents from the Dragon.

10. *forth.* Forward, into the forest (the Wandering Wood).

14. *can they praise.* Did they praise. 'Can', or 'gan', is frequent in our earlier poets as an auxiliary of the past tense. Coleridge, in *The Ancient Mariner*, imitates this use of it; *e. gr.*,

The mariners all gan work the ropes.

20. *weepeth.* Distils resin.

21. *The willow worn, &c.* See the Willow Song in *Othello*, Act IV, sc. iii; see also *The Merchant of Venice*, Act V, sc. i—

In such a night
Stood Dido with a willow in her hand
Upon the wild sea-banks, and waved her love
To come again to Carthage.

23. *the sallow for the mill.* A kind of willow, used in the construction of mill-wheels. (Lat. *salix*.)

24. *sweet-bleeding.* Exhaling a sweet fragrance.

26. *platane.* Plane tree. (Lat. *platanus*; from Gr. *plátus*, wide—the reference being to the broad leaf.)

27. *The carver holm.* The fine-grained evergreen oak, or holly (O.E. *hollin*), used for wood-engraving;—though not so good as box, which is preferred by turners and wood-carvers to every other kind of wood. [See Chaucer's reference to the box as the 'piper'—in the preceding passage.]

EXERCISES

1. Compare and contrast Spenser's trees with Chaucer's.
2. Compare and contrast Rime Royal with the Spenserian stanza.
3. What changes (if any) have taken place in the use of the different kinds of wood since the times of Chaucer and Spenser?

III. COWPER'S

ATTRACTIVE is the woodland scene,
Diversified with trees of every growth,
Alike, yet various. Here the gray smooth trunks
Of ash, or lime, or beech, distinctly shine,
Within the twilight of their distant shades;
There, lost behind a rising ground, the wood
Seems sunk, and shortened to its topmost boughs.

No tree in all the grove but has its charms,
Though each its hue peculiar; paler some,
10 And of a wannish gray,—the willow such,
And poplar, that with silver lines his leaf,
And ash far-stretching his umbrageous arm;
Of deeper green the elm; and deeper still,
Lord of the woods, the long-surviving oak:
Some glossy-leaved and shining in the sun,—
The maple, and the beech of oily nuts
Prolific, and the lime at dewy eve
Diffusing odours: nor unnoted pass
The sycamore, capricious in attire,
20 Now green, now tawny, and, ere autumn yet
Have changed the woods, in scarlet honours bright.

The Task, Book I.

[*The Task* was published in 1785. See *Notes*, p. 50.]

EXERCISES

1. Describe a ramble in a wood in spring, summer, autumn, or winter.

2. Collect (or figure) specimens of the leaves of the trees in Cowper's list.

3. How do you distinguish from one another the different

kinds of our commoner trees in winter (when the trees are leafless) ?

4. What trees, shrubs, or plants have a 'silver lining' to their leaves ?

5. What are the autumnal (say, October) tints of the following leaves—beech, plane, wild-cherry, bramble, ash, birch, &c.

A RAIN-STORM IN SUMMER

SEE where it smokes along the sounding plain,
Blown all aslant, a driving dashing rain !
Peal upon peal redoubling all around
Shakes it again, and faster, to the ground ;
Now flashing wide, now glancing as in play,
Swift beyond thought the lightnings dart away.

Ere yet it came, the traveller urged his steed,
And hurried, but with unsuccessful speed ;
Now, drenched throughout, and hopeless of his case,
He drops the rein, and leaves him to his pace. 10

Suppose, unlooked for in a scene so rude,
Long hid by interposing hill or wood,
Some mansion, neat and elegantly dressed,
By some kind hospitable heart possessed,
Offer him warmth, security and rest—
Think with what pleasure, safe and at his ease,
He hears the tempest howling in the trees.

WILLIAM COWPER : *Truth*, 238-54.

[NOTE.—Written at Olney, 1781. Cowper was born in 1731 ; died 1800.]

EXERCISES

1. Describe in prose the scene here presented, with any details or embellishments your knowledge of Nature may suggest.

2. Imagine 'the traveller' a character in the opening chapter of a story or novel: give an imaginative sketch of his past or future history, or of both.

3. How is the diction of these lines characteristic of the literary style of eighteenth-century verse?

SIGNS OF RAIN

THE hollow winds begin to blow,
The clouds look black, the glass is low;
The soot falls down, the spaniels sleep,
The spiders from their cobwebs peep.
Last night the sun went pale to bed,
The moon in halos hid her head;
The boding shepherd heaves a sigh,
For see! a rainbow spans the sky.
The walls are damp, the ditches smell;
Closed is the pink-eyed pimpernel.
Hark how the chairs and tables crack!
Old Betty's joints are on the rack.
Loud quack the ducks, the peacocks cry;
The distant hills are seeming nigh.
How restless are the snorting swine!
The busy flies disturb the kine.
Low o'er the grass the swallow wings;
The cricket, too, how sharp he sings!
Puss on the hearth, with velvet paws,
Sits wiping o'er her whiskered jaws.
Through the clear stream the fishes rise,
And nimbly catch the incautious flies.
The glow-worms, numerous and bright,
Illumed the dewy dell last night.

At dusk the squalid toad was seen,
Hopping and crawling o'er the green.
The whirling wind the dust obeys,
And in the rapid eddy plays.
The frog has changed his yellow vest,
And in a russet coat is dressed.
Though June, the air is cold and still,
The mellow blackbird's voice is shrill.
My dog, so altered in his taste,
Quits mutton-bones on grass to feast;
And see yon rooks! how odd their flight!
They imitate the gliding kite,
And seem precipitate to fall,
As if they felt the piercing ball.

30

'Twill surely rain: I see with sorrow
Our jaunt must be put off to-morrow.

40

EDWARD JENNER (1749-1823),
(a Gloucestershire physician and naturalist).

EXERCISES

1. Give any other signs of rain that you have yourself noticed.
2. Explain any six of the 'signs' in Dr. Jenner's list.
3. How does White of Selborne explain the odd tumbling of rooks and ravens in the air? [See Letter XLII.]

A GOOD WORD FOR THE NETTLE

(Urtica)

PUBLIC opinion has nothing to say in favour of the nettle: it is probably the most worthless and detested of weeds. We associate it in our minds with thorns and thistles, the symbols of man's punishment for his first disobedience; and a puritan divine has told us that 'its great abundance is a continued memorial of the Fall'. It is a weed ineradicable and useless; toil and sweat are necessary to keep it down; and no child of Adam has escaped the peril of its sting. *Its bad reputation.*

¹⁰ This is the case against the nettle.

Cannot a good word be said for it? It is, at least, of some interest to botanical science. In our island there are three well-known species—the common or great nettle, with heart-shaped leaves tapering to a point, and stalks that reach a height of two or three feet; the small nettle, not quite so common, readily distinguished by its brighter green, and its elliptical leaves; and the rather rare Roman nettle, of intermediate height, bearing narrow ovate leaves, *Its botanical interest.*

²⁰ and notorious for the virulence of its sting. (The white, or red, flowering dead-nettle, as the name indicates, has no sting, and is no true nettle.) The sting of the nettle is in the delicate thorns or hairs with which the leaves and stalks are plentifully armed. Small and fine though those hairs are, they are tubular, and communicate with a gland in the texture of the plant which is filled with formic acid. The fine hair easily pierces a sensitive skin, and, breaking, discharges the venomous acid into the

³⁰ wound, thereby occasioning the tingling pain which

every one has felt, and never forgets. The stinging apparatus is, in fact, a tiny flask of burning juice, with a long neck ending in a point sharper than a fine needle. If the nettle-stalk be firmly grasped in such a manner as to press the hairs along the stem, the hand takes no hurt: it is gentle handling that permits the tender hair to penetrate and sting. Hotspur in the play refers to the bold and skilful treatment of the nettle by the naked hand when he remarks aphoristically—‘Out of this 40 nettle, danger, we pluck this flower, safety.’ He simply means that with courage and caution danger may be safely encountered. What use the sting of the nettle is to the plant, in the economy of nature, it is not easy to say. It may serve against its destruction by browsing animals, but the foraging snail slides over it on a slimy pathway with impunity, and entomologists tell us that ‘at least thirty distinct species of insects in our native land derive their support from its stems and foliage’. Birds, too, in- 50 cluding poultry, peck at the ripened and ripening seeds, and find in them a nutritious or stimulative diet. The clumps and colonies of nettles so often seen growing rank beside abandoned homesteads have probably sprung up from seeds scattered in one way or another by ‘the villatic fowl’ which have long since vanished with their proprietors.

Its artistic interest.

But, besides the botanical, there is also the artistic interest, which will be recognized as soon as attention is called to it. A plantation or clump of the common 60 nettle is not without grace, alike of colour, form, and air. The stately stem bears aloft, with an air of tranquil independence, a pomp of rich and well-

arranged foliage, whose greenness is refreshing to the eye; the whole scene is not incapable of producing a train of thought equally refreshing to the mind. So at least Wordsworth often found it:

I well remember that those very plumes,
Those weeds, and the high spear-grass on that wall,
 70 By mist and silent rain-drops silvered o'er,
 As here I passed, into my heart conveyed
 So still an image of tranquillity,
 So calm and still, and looked so beautiful
 Amid the uneasy thoughts that filled my mind,
 That what we feel of sorrow and despair
 From ruin and from change, and all the grief
 That passing shows of being leave behind,
 Appeared an idle dream.
 I turned away,
 80 And walked along my road in happiness.

To Keats, crossing a heath in Scotland, the plant suggested the elusive vision of an ancient Druid in flowing robes 'that rustled by and swept the nettled green'. To the figure-designer of textile fabrics the nettle-leaf and the nettle-branch offer valuable suggestions of a more practical kind; and the painter can scarcely better instil into his picture of a decayed castle or a deserted cottage the note of desolation, than by introducing a host of invading nettles in the court-
 90 yard, or by representing a single plant spying round the corner of a gable. The great or common nettle and the nipping Roman nettle may both be found at those points along Hadrian's double wall where, seventeen centuries ago, stood Roman castra or castellum.

The industrial uses of the nettle have hitherto been *Its indus-*
 sporadic. One or other of them, however, may yet *trial uses.*
 come to be general and permanent. Its use as an

article of food may be noticed first. The young tender shoots, taken in April or May, are occasionally used as a table vegetable by those who have acquired ¹⁰⁰ a taste for them, or imagined a benefit from them; but they are more frequently made use of as greens by the poor, who have little choice, and by the well-to-do peasantry in times of comparative famine. Writing in April 1740 at Melville Castle, Lord Leven makes the following statement: 'Here we have no grass at all; if we have no change of weather soon, the poor people must starve. The poor creatures in the neighbourhood come here begging for leave to pull nettles about the dykes for themselves, and ¹¹⁰ heather and moss for their beasts. We have daily shoals, numbering sometimes twenty, with death on their faces.' In some parts of Northern Europe, such as Sweden and Norway, the nettle is even cultivated as a good feeding stuff for pigs and other farm animals. Poultry, as already mentioned, and especially turkeys, thrive upon it. A kind of beer, known as nettle-tea, can be made from it, and is described as medicinal and enlivening. Gipsies find a cheap means of blistering in whipping themselves with a bunch of ¹²⁰ nettles; and they also eat the nettle after boiling it to cure or prevent scurvy. There is even a nettle potato, the tubers of which are eaten in India. But the nettle is of utility also in the textile industry, both for the manufacture and for the dyeing of cloth and cordage. Nettle fibre was used for spinning and weaving by the ancient Egyptians: it is still in use for these purposes in various countries of Asia from Assam to Siberia. The finest lace-work and the coarsest cables can be made from the fibre of one or ¹³⁰

other of several foreign varieties of the nettle. In China and Japan, a genus of the nettle tribe, called *boehmeria*, gives a fibre that is known to trade as rhea or China grass. It is used in the Far East for cloth and paper, ropes and cords. Manufacturers tell us that it is stronger than jute, and quite as strong and fine as flax, and of superior lustre. This is the likeliest use of the nettle tribe, awaiting perhaps a rich development in the future. The one difficulty
 140 is the invention of a cheap machine to prepare the fibre. For dyeing purposes the root of the nettle yields a beautiful yellow, and the leaves and stems give a fast and not less beautiful green. One other use of the nettle may be mentioned—its employment as a substitute for rennet in making milk into curd. This coagulating property of the juice of the plant is also effectual in stopping leakages in casks and pails: it is enough to rub the juicy nettle branch at the leak for a minute or two.

EDITOR.

NOTES

LINE 38. *Hotspur in the play*. Shakespeare's *King Henry the Fourth*, Part I, Act II, sc. iii.

44. *economy of nature*. In which everything is supposed or known to serve a purpose.

56. *villatic fowl*. The expression is Milton's — *Samson Agonistes*, 1695. (Lat. *villa*, a farm-house.)

67. *Wordsworth found it*. *The Excursion*, i, ll. 942 *seqq.*

EXERCISES

1. To what various uses may the common nettle be applied?
2. Describe the sting of the nettle. How is the dock-leaf a remedy for a nettle wound?
3. Compare and contrast the dead-nettle with the common nettle.

THE BROOM-BUSH

*The Broom
in poetry.*

LIKE the whin-bush, which, at a distance and especially when in bloom, it resembles, the broom is described by botanists as papilionaceous and leguminous,—meaning thereby that its flowers are shaped like butterflies ('on tiptoe for a flight'), and its seeds confined in pods as are those of the pea and the bean. It is more favoured, however, by the poets than is the whin, and it is dearer to the popular imagination, because, though it wants the virtue of fragrance, which the furze possesses, it wants also the 10 objectionable vice of thorns. One can lie among it in pastoral ease.

O the Broom, the yellow Broom!
The ancient poets sung it;
And sweet it is on summer days
To lie at rest among it.

Both mediaeval and modern poets have sung it. Chaucer has a pretty vignette in his *House of Fame* of a herd-boy piping in the luminous shadow of its cool, green, flowering branches :

20

Pypes made of grene corne
Han thise litel herde-gromes
That kepen bestes in the bromes.

The broom of Cowdenknowes, and the joys of shepherd life which it sheltered, are well known to the lover of Lowland Scottish ballads. No broom, or bush of any kind—not even the bush aboon Traquair (thought Robert Crawford) could compare with Cowdenknowes broom; and the three successive songs that celebrate it will go echoing up and down Leader side for ever! 30

Again, is there a Jacobite (and in sentiment all men of heart are Jacobites) who has not sympathized, without excess of pity, with the hunted prince who slept beneath a bush o' broom wrapped in a plaid,—which, to be sure, was a spare though romantic covering? The 'landscape glow' of Thomson would be incomplete without the broom. His bull in the broom was a splendid inset for *Spring*:

Scarce seen he wades among the yellow broom,
 40 While o'er his brawny back the rambling sprays
 Luxuriant shoot.

Both Burns and Tannahill also felt the charm of the broom in the furniture of a Scottish landscape: dear to the greater Robert was

the lone glen of green bracken
 Wi' the burn stealing under the long yellow broom;
 and the later and lesser found the fairy graces of
 Craigielea wood enhanced by the broom, the briar,
 and the birken bush that bloomed on the skirts of it.
 50 More recently Scott adorned the Trossachs Glen with
 the broom, though it was but to serve by the toughness of its roots as a ladder for FitzJames in his ascent to the poetry of Loch Katrine. It is needless to multiply proof of the value of broom in poetry; yet, at leaving the subject, one is reminded of Matthew Arnold's fine touch (which gilds refined gold—yet with effect!) in the famous *Hymn to Apollo*:

What forms are these coming
 So white through the gloom?
 60 What garments outglistening
 The gold-flower'd broom?

And there is also Wordsworth's strong, fresh, dramatic

idyl of *The Oak and the Broom*, which he would never have written had not Burns shown him the way by the *Address to a Mountain Daisy*.

*How
Broom
seed is dis-
seminated.*

The broom grows frequently in communities of immemorial age, self-seeded and self-protected; but there is to be found, now and again, in some remote recess or romantic rock-crevice, a solitary stock of broom flourishing gaily in its solitude. How came it 70 planted there? It was by a freak of nature: breeze, or bird, or fleece of vagrant sheep conveyed the seed, and it grew a seedling, a sapling, and a fully matured matron-bush, capable at last of founding a colony, and attracting adventurous bees and roving butterflies to its West Indian wealth of blossom.

*The
Broom in
history.*

The historical interest of the broom, the *Plantagenista* variety, is of next interest to the poetical and picturesque. For over three centuries it was the badge and the surname (Plantagenet) of the Kings 80 of England—that is, from the accession of Henry II to the death on Bosworth plain of the third Richard. It was the Angevin Geoffrey who first wore it (for some reason or other) in his bonnet. It was the broom, too, though in its domestic capacity, that adorned the masthead of Martin Tromp when that fighting Dutch admiral sailed ostentatiously up the Channel after his one great victory over Blake in Dover Straits on St. Andrew's Day 1652. It was supposed to emblemize the sweeping of England's mariners for ever from the 90 seas. But, as one Scottish poet says, 'Britannia still rules the wave'; and, as another nobly sings, 'the sweeping of the deep' is being and is to be done by 'the Mariners of England'.

There is something of the wild grace and bouquet

of the romantic ballad in the natural growth of a wilderness of broom. That is implied in the amount of poetry that grew out of it or that found refuge in it. But the broom has also (as the phrase goes) its *Uses of the Broom.*

100 utilitarian side. It is still (thanks to its clean, strong, straight, angular twigs) made into rustic besoms and brushes for yards, enclosures, floors, and griddles—though for the last-mentioned purpose hens' feathers wage with it a persistent rivalry. Its twigs are also sometimes woven into baskets, but in no keen competition with wicker and hazel; and they furnish a green dye, while a yellow dye is got from the flowers. Even the fibres have been manufactured into textile fabrics. The seeds, small and shiny, which are scattered with a crack when the pods grow black and

110 explode in August and September, are (like the tender shoots of the plant) not unpleasantly bitter, and as diuretic as the dandelion, and utilized therefore both in cookery and pharmacy. Two centuries ago Sir William Temple regarded broom as more friendly to health than any other plants of our climate and soil. It was sovereign in dropsies, 'whether brewed, or its ashes taken in white wine every morning.' Lastly, here not to exhaust its useful merits, from the wood

120 of the main stem, where it attains firmness and size, handsome veneers may be cut by the cabinet-maker.

Though vigorous in appearance wherever it grows, *A more hardy bush than the furze.* the common broom looks less robust than the rough, jaggy whin; yet it can endure the rigour of higher latitudes, burgeon in situations more exposed, and thrive on thinner soil. In the Scottish Highlands the whin is by no means common, and it pines or dies in hot climates. England, perhaps, or the Lowlands of

Scotland, is the ideal habitat of the whin, where Linnaeus on his knees worshipped the magnificence¹³⁰ of its floral display. But the broom, too, has its annual field of cloth of gold in June or July.

Only one
species of
the Broom-
bush in
Britain.

The *Leguminosae*, to which order belong both furze and broom, are of many species, all the British (numbering nearly seventy) being without exception papilionaceous; but of those that attain to the dignity of shrubs there is only one broom in Britain, two species of whin, and three genistas. EDITOR.

NOTES

LINE 24. *Cowdenknowes*. The Knolls of Colden; a mile south of the village of Earlston, in Berwickshire, on Leader water (a trib. of Tweed).

27. *bush aboon Traquair*. Traquair near Innerleithen, on Tweed, Peebles-shire.

28. *Robert Crawford*. One of Scotland's many poetical Roberts; born 1695 (?), died 1733 (?); author of the three pastoral lyrics—*Down the Burn, Davie, The Broom of the Cowdenknowes*, and *The Bush aboon Traquair*. A verse from the second-named of these goes thus:—

Not Teviot braes so green and gay
May with this broom compare,—
Not Yarrow banks in flowery May,
Nor the bush aboon Traquair.

33. *the hunted prince*. 'Bonnie Prince Charlie,' son of The Chevalier, James 'the Pretender'. He led the rising in Scotland, known as 'The Forty-five'. After his defeat at Culloden, he became a fugitive, with a price of £30,000 on his head. He eluded capture, and got safely off to France. One of the songs that celebrate his adventures, known as *Wae's me for Prince Charlie*, contains the verse—

Dark night cam on, the tempest howled
Out-owre the hills and valleys;
And whar was 't that your prince lay down,
Wha's hame should been a palace?

He row'd him in a Highland plaid,
 It cover'd him but sparely,
 And slept beneath a bush o' broom—
 Oh! wae's me for Prince Charlie!

The author was William Glen (1789-1826).

36. *The landscape glow of Thomson.* See Burns's *Vision* (Duan Second)—

Thou canst not learn, nor can I show,
 To paint with Thomson's landscape glow.

42. *Tannahill.* Robert Tannahill (1774-1810), author of some sweet lyrics only less popular than the songs of Burns: from one of these (*Bonnie Wood o' Craigie-lea*) the following lines are taken—

The broom, the brier, the birken bush,
 Bloom bonnie o'er thy flowery lea;
 And a' the sweets that ane can wish
 Frae Nature's hand are strew'd on thee.

45. *the lone glen of green bracken, &c.* From a song beginning—

Their groves o' sweet myrtles let foreign lands reckon.

52. *a ladder for FitzJames.* See *The Lady of the Lake*, Canto I—

The broom's tough roots his ladder made,
 The hazel saplings lent their aid;
 And thus an airy point he won
 Where, gleaming with the setting sun,
 One burnished sheet of living gold,
 Loch Katrine lay beneath him rolled.

64. *had not Burns shown him the way.* Here is his own confession, at the grave of Burns, in 1803:

I mourned with thousands—

he is alluding to the death of the Scottish poet, which had happened seven years previously—

but, as one,
 More deeply grieved: for he was gone
 Whose light I hailed when first it shone
 And showed my youth
How Verse may build a princely throne
On humble truth.

The lesson he received from the *Addresses* to the field mouse and to the mountain daisy appears again and again in much of Wordsworth's poetry. Is it too much to say that to that lesson is traceable the most enduring, perhaps the chief, feature of his message as a poet to mankind?

91. *one Scottish poet says . . . another nobly sings.* Thomson and Campbell respectively.

130. *Linnaeus.* The famous Swedish botanist (1707-78). The furze is scarcely known in Sweden. It was the furze bloom on Wimbledon Common, London, that so enraptured Linnaeus.

132. *field of cloth of gold.* Near Guisnes, in France, but in the English dominion, where Henry VIII met Francis I, in 1520, both kings with their imposing retinues presenting a 'blaze of grandeur' that almost impoverished two nations.

EXERCISES

1. Compare and contrast the broom with the whin.
2. Mention some domestic uses of the broom.

THE OAK AND THE BROOM : A PASTORAL

His simple truths did Andrew glean
Beside the babbling rills:
A careful student he had been
Among the woods and hills.

*One winter's night, when through the trees
The wind was roaring, on his knees*

*His youngest born did Andrew hold;
And, while the rest, a ruddy quire,
Were seated round their blazing fire,*

10 *This tale the shepherd told:—*

I saw a crag, a lofty stone

As ever tempest beat!

Out of its head an Oak had grown,

A Broom out of its feet.

The time was March, a cheerful noon—

The thaw-wind, with the breath of June,

Breathed gently from the warm south-west;

When, in a voice sedate with age,

This Oak, a giant and a sage,

20 His neighbour thus addressed:

‘Eight weary weeks, through rock and clay,

Along this mountain's edge

The Frost hath wrought both night and day,

Wedge driving after wedge:

Look up! and think, above your head,

What trouble surely will be bred!

Last night I heard a crash,—’tis true

The splinters took another road;

I see them yonder; what a load

30 For such a thing as you!

You are preparing as before

To deck your slender shape;

And yet, just three years back, no more,

You had a strange escape:

Down from yon cliff a fragment broke !
It thundered down with fire and smoke,
And hitherward pursued its way !
This ponderous block was caught by me ;
And o'er your head, as you may see,
'Tis hanging to this day.

40

If breeze or bird to this rough steep
Your kind's first seed did bear,
The breeze had better been asleep,
The bird caught in a snare ;
For you and your green twigs decoy
The little witless shepherd-boy
To come and slumber in your bower,
And, trust me, on some sultry noon
Both you and he—Heaven knows how soon!—
Will perish in one hour.

50

From me this friendly warning take—'
The Broom began to doze,
And thus (to keep herself awake)
Did gently interpose :
'My thanks for your discourse are due ;
That it is true, and more than true,
I know ; and I have known it long.
Frail is the bond by which we hold
Our being, whether young, or old,
Wise, foolish, weak, or strong.

60

Disasters, do the best we can,
Will reach both great and small ;
And he is oft the wisest man
Who is not wise at all !

For me, why should I wish to roam
This spot is my paternal home,
It is my pleasant heritage :
My father many a happy year
Spread here his careless blossoms, here
Attained a good old age.

70

Even such as his may be my lot.
What cause have I to haunt
My heart with terrors? Am I not
In truth a favoured plant!
On me such bounty Summer pours
That I am covered o'er with flowers;
And, when the frost is in the sky,
My branches are so fresh and gay
That you might look at me and say
"This Plant can never die".

80

The butterfly, all green and gold,
To me hath often flown,
Here in my blossoms to behold
Wings lovely as his own.
When grass is chill with rain or dew,
Beneath my shade the mother ewe
Lies with her infant lamb; I see
The love they to each other make;
And the sweet joy which they partake—
It is a joy to me.'

90

Her voice was blithe, her heart was light:
The Broom might have pursued
Her speech until the stars of night
Their journey had renewed;

But in the branches of the oak
 Two ravens now began to croak
 Their nuptial song, a gladsome air!
 And to her own green bower the breeze
 That instant brought two stripling bees,
 To rest or murmur there.

100

One night, my Children! from the north
 There came a furious blast.
 At break of day I ventured forth,
 And near the cliff I passed.
 The storm had fallen upon the Oak!
 Had struck him with a mighty stroke,
 And whirled-and-whirled him far away;
 And, in one hospitable cleft,
 The little careless Broom was left,
 To live for many a day.

110

W. WORDSWORTH.

NOTES

[This poem was composed in 1800. The scene of the fable is the neighbourhood of Grasmere, 'a good way up Nab Scar,' where the ponderous block of stone may still be seen, with broom growing under and near it.]

EXERCISES

1. Describe Shepherd Andrew's fireside.
2. Write two paragraphs, setting forth what Andrew *saw* on the occasion of each of his two visits to the scene of the fable.
3. Give briefly the substance of the Oak's warning, and the Broom's reply.
4. Compare and contrast the personal character of the Oak with that of the Broom as inferred from their talk.
5. What characteristics of Wordsworth's style (or of his genius) do you notice in the poem? Quote to illustrate.

6. Explain the paradox, 'He is oft the wisest man who is not wise at all.' (Write out a list of paradoxes—such as, 'He is all faults who has no fault at all,' 'The child is father of the man,' 'The more he gave away the more he had,' &c.)

7. What botanical (or 'Nature') knowledge does Wordsworth reveal in his description of the broom? (Write out the facts in a list,—such as the effect of thaw after frost, the natural dissemination of seeds, butterfly wings in the broom blossom, &c.)

8. Which do you consider the most poetical stanza? Why?

THE BRAMBLE, OR BLACKBERRY

(*Rubus fruticosus*)

THE Bramble is misnamed, if we accept its original meaning of 'the little Broom'; for it has no connexion, botanically considered, with the leguminous broom, but belongs to the rose tribe, with alliance therefore to the apple, the briar, the may, and the meadow-sweet. Its corolla is, indeed, a small white rose, occasionally tinged with pink; and, even among the aristocratic representatives of its tribe, 'all a-growing, all a-blowing', it 'need not be ashamed to show its satin-threaded flowers'. But its beauty seems to have been a late discovery. In the Bible the plant finds no more favour than the dog; appearing there as one of the emblems and evidences of the primal curse: 'Do men gather grapes of brambles, or figs of thistles?' And in Jotham's apologue it figures as an execrable contrast to the olive, the fig, and the vine. Hence it came to be spoken of as a weak, spreading, prickly shrub of rapid growth and speedy decay, hurtful as to its thorns, sour and worthless as to its

The Bramble despised as a worthless shrub.

fruit, and fit only as fuel for the flames! Chaucer²⁰ was one of the earliest of our open-air poets to say a word in its favour: its chaste, sweet, unassuming blossom caught his unprejudiced eye. It grows, in one or other of its many varieties, more or less luxuriantly in our own country, from the shores of the Moray firth to the Solway side; and flourishes (mostly on sufferance, it must be confessed) south of the Border, where, as the Blackberry, it cannot grow too abundantly for schoolboys and other vagrants unburdened with the care of land or lordship.

30

Thy fruit full well the schoolboy knows,
Wild bramble of the brake—

bravely sang Ebenezer Elliott, the Corn-Law Rhymer, nearly a century ago; and again—

Scorned bramble of the brake! once more
Thou bid'st me be a boy,
To gad with thee the woodlands o'er
In freedom and in joy.

*Its thorns
the objec-
tion—not
its fruit!*

Scorned, indeed, it still is by fruit-grower and gardener; and yet there are signs that this traditionary⁴⁰ scorn, for which there is really small reason, is relenting, and that *Rubus fruticosus* is being more and more judged on its merits. No one will deny the rare delicacy of its flavour in jams and jellies,—and, if the great objection of its thorns could be overcome by the development of a spineless variety, there is little doubt it would soon find a place in the fruit garden, where its inveterate tendency to run amok among law-abiding bushes would doubtless be successfully countered. It should not be beyond the scientific⁵⁰

gardener's skill to aid in the development of a spineless bramble. Meanwhile the Logan-berry, a Californian hybrid between the rasp and the bramble, has almost become an established favourite, not only for the size and excellent flavour of the fruit, but for its use as a handsome screen in covering or concealing unsightly corners. It is vigorous enough to send out an annual growth of twelve feet, or more, if trained along a trellis with a good exposure to the sun.

60 The rasp or hyndberry, the cloudberry, and the dewberry have the same cognomen, *Rubus*, as the blackberry or common bramble; but the common
The Bramble a large family, with many varieties.
 bramble itself is amongst the most variable of British shrubs, and has therefore a potentiality of development under cultivation. Its variableness, and the number of its species and sub-species, are so great as to make the plant quite a puzzle to botanists to arrange. The cut-leaved variety is curious, with its leaf divided up in a manner resembling the divisions
 70 of the parsley leaf; and there is the hazel-leaved variety, which constitutes the connecting link between the common bramble and the dewberry. Its ampler, softer leaf, its larger and less compact flower, and the grey bloom on its fruit distinguish the dewberry; the hazel-leaved blackberry, like the common bramble, has no bloom on the fruit.

Independently of flower and fruit, there is a beauty
Its natural beauty.
 in the shape of the common bramble which appeals to the artist's eye, and is often the effective subject of his
 80 pencil. Its rough, ribbed, five-lobed leaf, and its hooked and gracefully arched stem mark it off from all other underwoods; while its robust, forceful growth, and air of dauntless frowardness and rustic

freedom, at once captivate and charm us. It has something of gipsy boldness and picturesqueness as it sits aggressively encamped on the skirts of the jungle. Winter does not tame it; it is almost an evergreen,—green often at the solstice of an open winter: in very severe seasons of biting frosts, its hardy leaf takes on exquisite tints of crimson, purple, and bronze. Alto-⁹⁰gether, what with its red spiky arches, and its ornamental combination of delicate white flowers and variously coloured fruits, from green to glossy black, with which (as Cowper says) it is ‘embossed’, the bramble-bush is a thing of beauty to behold, and a joy to remember.

*Its loco-
motive
power!*

I have now to speak of a most interesting feature in the life of the bramble, which may almost be described as a property of biological interest; at least it is the property (of which, it is true, some other¹⁰⁰ plants have a share) of having within its power the means of saving its life from threatened destruction, and of promoting its welfare by self-migration to more advantageous environments. This property is a measure of the power of locomotion—the ability to walk away from an unsuitable settlement, or to prospect and search for a better! It is an intelligence—at least it is a quality or power—which nature has denied to an ordinary bush or tree. Where even *Robur*, the oak, stands, there he must live, bound to¹¹⁰ the lot and spot to which fortune destined him,—unless in his early youth the hand and help of man has come to his aid. Fixed, like Prometheus to his rock, he must ‘dree his weird’. It is otherwise with vagabond *Rubus*. The bramble has the means of escape in the ability of its branches to shoot away

from unhealthy places and hostile rivals, to take temporary rest in the flight from discomfort and danger by rooting at convenient places where the pioneering
 120 branches (bowed down by their own weight) bend to touch the ground, and to proceed again recruited from those stations as from new bases and centres of strength, until in the prolonged struggle the energetic plant arrives by happy chance at an area favourable to life and (it may be) luxuriant or even luxurious existence. The manner of its flight reminds one of the old story of the Libyan wrestler whose strength was renewed by repeated contact with his mother earth. It suggests a converse to the old proverb that
 130 pride precedes a fall; every fall may not be disastrous, but the occasion and cause of a pride that is justifiable.

Perhaps the surest enemy of the bramble is 'the prosperous growth of the tall wood' (to use Milton's words); the wood, that is, in which, while the trees were still tiny saplings, it too, as a seedling, began its history. Its low horizontal method of growth cannot cope with the erect growth of the forest, and, as the latter gains upon it, gradually shutting out sun
 140 and air, its only chance of survival is to shift, by the means at its disposal, to new quarters on the edge of the wood. Hence it is that you generally find strong and abiding colonies of brambles more or less regularly established along the line where the woodland meets the open. There they thrive against the hostility of all kinds of undergrowth, thanks to a robust constitution, to capable far-reaching arms, and hands of rough, tough, five-fingered leaves that can both grip and resist; thanks also to an armoury of

Where it thrives.

spikes and hooks, by which they maintain themselves, 150 and hold their own, against insidious plant and raiding animal. There they are at once free of the agriculturist's mattock and the suffocating air of the overshadowing forest, dwelling in comparative peace on the border-line; and from there they can make, when opportunity offers, a ready return to the original home from which they were inevitably ousted—that is, when the woodcutter has done harvesting the now mature timber, and both the way and the air are clear for their return.

No intention in Nature—but achievement.

Of course, as there is no intention in nature, so there is no consciousness of purpose in the bramble; but, if there is no purpose, there is achievement, and the result of its equipment, as here briefly outlined, is to aid the bramble in its evident struggle for life and its apparent desire to occupy as fair a place in the sun as possible.

160

EDITOR.

NOTES

LINE 1. *Bramble*, A.S. *brēm-el*, the little broom; A.S. *brōm*, broom. The diminutive suffix, *-el* or *-le*, is seen in kernel, hovel, nozzle, paddle, &c.

3. *leguminous*. Bearing pods or legumes, like the pea, bean, &c.

6. *corolla*, dimin. of Lat. *corōna*, a crown; the petals, or inner leaves of a flower. The outer leaves or case are the sepals or calyx.

8. *aristocratic representatives*. Roses.

13. *emblems . . . of the primal curse*. 'Cursed is the ground for thy sake, . . . thorns also and thistles shall it bring forth to thee.' Genesis, iii. 17, 18.

14. *Do men gather grapes of thorns, &c.?* Matthew, vii. 16.

15. *Jotham's apologue.* For the parable of Jotham, see Judges, ix. 8-15: 'The trees went forth on a time to anoint a king over them, &c.'

17. *it came to be spoken of.* By, for example, John Brown, D.D., in his *Dictionary of the Bible*.

20. *Chaucer . . . a word in its favour.* 'Sweet as is the bremble-flour.' Tale of Sir Thopas, Stanza VI. [But probably Chaucer means the dog-rose.]

42. *Rubus*, from Lat. *ruber*, red.

48. *to run amok.* To run wild, attacking all who come in the way. *Amók* (amúck) is a Malay word.

50. *countered.* Opposed, from Lat. *contra*, against.

59. *trellis.* Lattice-work. (Lat. *tres*, three, *licium*, a thread.)

60. *rasp or hyndberry.* Hogg in *The Queen's Wake* (Bonnie Kilmeny) has—

To pu' the hyp and the hyndberrý,
And the nut that hangs from the hazel tree.

60. *cloudberry.* Grows, without prickles, in peaty mountainous places in the north of Great Britain; the fruit orange-red: known in Scotland as avrons.

60. *the dewberry.* Shakespeare refers to it in *A Midsummer Night's Dream*, III. i,

Feed him with apricots and dewberries,
With purple grapes, green figs, and mulberries.

68. *The cut-leaved variety.* Found in Surrey.

94. *as Cowper says.* In *The Task*, Bk. I. 121—

berries that emboss
The bramble, black as jet.

114. *dree his weird.* Endure or bear his fate.

127. *the Libyan wrestler.* Antaeus.

134. *Milton's words.* In *Comus*, l. 270.

TO THE BRAMBLE

THY fruit full well the schoolboy knows,
 Wild bramble of the brake !
 So put thou forth thy small white rose ;
 I love it for his sake.
 Though woodbines flaunt and roses glow
 O'er all the fragrant bowers,
 Thou need'st not be ashamed to show
 Thy satin-threaded flowers.
 For dull the eye, the heart is dull
 That cannot feel how fair,
 Amid all beauty beautiful,
 Thy tender blossoms are.

10

How delicate thy gauzy frill !
 How rich thy branchy stem !
 How soft thy voice when woods are still,
 And thou sing'st hymns to them,
 While silent showers are falling slow,
 And, 'mid the general hush,
 A sweet air lifts the little bough,
 Lone-whispering thro' the bush !

20

The primrose to the grave is gone,
 The hawthorn flower is dead,
 The violet by the mossed gray stone
 Hath laid her weary head.
 But thou, wild bramble ! back dost bring,
 In all their beauteous power,
 The fresh green days of life's fair spring,
 And boyhood's blossomy hour.

Scorned bramble of the brake! once more

30

Thou bid'st me be a boy,
To gad with thee the woodlands o'er
In freedom and in joy.

EBENEZER ELLIOTT.

[NOTE.—The author of these verses, Ebenezer Elliott, by trade an iron-founder, was born in Yorkshire in 1781, and died in 1849. He became famous for his *Corn-law Rhymes* (1830–6); but it was the picture of a primrose in a book of botany that by leading him into the fields made him a poet.]

EXERCISES

1. Describe a blackberrying expedition.
2. What other plant or bush produces flowers and fruit at the same time? What other plants have a locomotive power similar to that of the bramble?
3. Fix as nearly as may be (for your district) the season of primroses, of may-blossom, and of violets.
4. What word, or phrase, or short passage in this poem do you like best, as being specially poetical?

CLEAR FROST IN WINTER

AND now, behold, the joyous winter-days, frosty, succeed; and through the blue serene, for sight too fine, the ethereal nitre flies, killing infectious damps, and the spent air storing afresh with elemental life. Close crowds the shining atmosphere, and binds our strengthened bodies in its cold embrace, constringent; feeds and animates our blood; refines our spirits, through the new-strung nerves in swifter sallies darting to the brain,—where sits the soul, intense

collected, cool, bright as the skies, and as the season ¹⁰ keen. All Nature feels the renovating force of winter,—only to the thoughtless eye is ruin seen. The frost-concocted glebe draws in abundant vegetable soul, and gathers vigour for the coming year. A stronger glow sits on the lively cheek of ruddy fire; and luculent along the purer rivers flow. Their sullen deeps transparent open to the shepherd's gaze, and murmur hoarser at the fixing frost.

What art thou, Frost? And whence are thy keen stores derived, thou secret, all-invading power, whom ²⁰ even the illusive fluid cannot fly? Is not thy potent energy unseen myriads of little salts, or hooked or shaped like double wedges, and diffused immense through water, earth, and ether? Hence, at eve, steamed eager from the red horizon round, with the fierce rage of winter deep suffused, an icy gale, oft shifting, o'er the pool breathes a blue film, and, in its mid career, arrests the bickering stream. The loosened ice, let down the flood, and half dissolved by day, rustles no more, but to the sedgy bank fast grows, or ³⁰ gathers round the pointed stone—a crystal pavement, by the breath of heaven cemented firm; till, seized from shore to shore, the whole imprisoned river growls below. Loud rings the frozen earth, and, hard, reflects a double noise; while, at his evening watch, the village dog deters the nightly thief, the heifer lows, the distant waterfall swells in the breeze, and, with the hasty tread of traveller, the hollow-sounding plain shakes from afar. The full ethereal round, infinite worlds disclosing to the view, shines out ⁴⁰ intensely keen, and, all one cope of starry glitter, glows from pole to pole.

From pole to pole the rigid influence falls through the still night, incessant, heavy, strong, and seizes Nature fast. It freezes on, till morn, late rising o'er the drooping world, lifts her pale eye unjoyous. Then appears the various labour of the silent night:—prone from the dripping cave and dumb cascade, whose idle torrents only seem to roar, the pendent icicle; the
50 frost-work fair, where transient hues and fancied figures rise; wide-spouted o'er the hill the frozen brook, a livid track, cold-gleaming on the morn; the forest, bent beneath the plummy wave; and, by the frost refined, the whiter snow, incrusted hard, and sounding to the tread of early shepherd as he pensive seeks his pining flock, or from the mountain-top, pleased with the slippery surface, swift descends.

On blithesome frolics bent, the youthful swains, while every work of man is laid at rest, fond o'er the
60 river crowd, in various sport and revelry dissolved; and, as they sweep on sounding skates a thousand different ways, in circling poise, swift as the winds along, the now gay land is maddened all to joy. Eager on rapid sleds the vigorous youth in bold contention wheel their sounding course; and, mixing glad, happiest of all the train, the raptured boy lashes the whirling top.

Pure, quick, and sportful is the wholesome day; but soon elapsed. The horizontal sun broad o'er the south
70 hangs at his utmost noon, and ineffectual strikes the gelid cliff. His azure gloss the mountain still maintains, nor feels the feeble touch; perhaps the vale relents awhile to the reflected ray; or from the forest falls the clustered snow, in myriad gems that, in the waving gleam, gay-twinkle as they scatter. Mean-

while, around, thunders the sport of those who with the gun, and dog impatient bounding at the shot, worse than the season desolate the fields, and, adding to the ruins of the year, distress the footed or the feathered game.

80

JAMES THOMSON: *Winter*, 692-793.

(Slightly adapted.)

NOTES

[*Winter* was Thomson's first successful effort in poetry, published in March 1726, exactly one year after his arrival in England. It was mostly written at East Barnet, about ten miles from London, where he was employed as tutor to a young Scottish nobleman. He was then in his twenty-sixth year.]

LINE 2. *the blue serene*. The bright blue sky. (Lat. *serēnus*, clear.)

3. *the ethereal nitre*. Frost. Cowper also refers to 'the nitrous air feeding a blue flame' (*The Task*, iii. 32).

13. *vegetable soul*. Power to produce healthy vegetation.

15. *the lively cheek of ruddy fire*. As there is a greater specific quantity of oxygen in the air in frosty weather, and more oxygen is consequently burned, the fire burns with a brighter flame. There is a brighter reflection from the sides of the fire-place,—'the cheeks o' the fire'.

16. *luculent*. Clear or bright; Lat. *luculentus*, from *lux*, light.

21. *the illusive fluid*. Mercury; which freezes at 39° below zero.

22. *myriads of little salts*. The minute crystals of which snow is composed are commonly in the form of six-pointed stars. But the varieties of this form number hundreds.

25. *steamed eager*, &c. The reference is to 'icy gale'; 'suffused' again refers to 'the red horizon'.

35. *a double noise*. A noise increased to twice its ordinary loudness.

39. *The full ethereal round*. The whole vault of heaven, clear of cloud.

43. *the rigid influence*. The stiffening and hardening power of frost.

53. *the plumy wave.* Feathery wreaths of snow.

71. *azure gloss.* Russell Lowell (*My Study Windows: A Good Word for Winter*), speaking of snow surfaces, says—
'Not less rare are the tints of which they are capable—the faint blue of the hollows—for the shadows in snow are always blue.'
Thomson anticipated the remark.

NATURAL SELECTION

IF, under changing conditions of life, organic beings present individual differences in almost every part of their structure,—and this cannot be disputed ;

If there be, owing to their geometrical rate of increase, a severe struggle for life at some age, season, or year,—and this certainly cannot be disputed ;

Then, considering the infinite complexity of the relations of all organic beings to each other, and to their conditions of life, causing an infinite diversity in
10 structure, constitution, and habits to be advantageous to them, it would be a most extraordinary fact if no variations had ever occurred useful to each being's own welfare, in the same manner as so many variations have occurred useful to man.

But, if variations useful to any organic being ever do occur, assuredly individuals thus characterized will have the best chance of being preserved in the struggle for life ; and, from the strong principle of inheritance, these will tend to produce offspring similarly
20 characterized.

This principle of preservation, or the survival of the fittest, I have called Natural Selection.

CHARLES DARWIN : *Origin of Species.*

[Born at Shrewsbury in 1809; educated at Edinburgh and Cambridge; naturalist on board the *Beagle* (1831-6); published his greatest work, *The Origin of Species*, in 1859; died 1882.]

EXERCISES

1. Mention some 'changing conditions of life'.
2. Illustrate the 'struggle for life' in the case of wrens, rabbits, &c. Explain 'geometrical rate of increase' as exemplified in wild animals with which you are acquainted. Mention all the causes you can think of as likely to shorten the life of a sparrow, or a deer, or a trout, &c.
3. How may the increase of voles, constituting a plague, be accounted for? What might be the effect of shooting all the owls and hawks in a district upon other organic life, and upon human welfare or comfort? What is meant by the 'balance of nature'?
4. May there be variations in the structure or habits of wild animals that are *not* 'useful' to them? How might they arise? What would be their ultimate effect? How is it that some species of animals are now extinct?
5. How has domesticity interfered with natural selection? Is it always true that only the fittest survive? Is the strongest the fittest? What more than strength is required to render an animal 'fit'?

EXPLANATION OF SOME BOTANICAL TERMS

- anther**, the top of a stamen: it contains pollen.
axil, the angle between a leaf and the stem.
bract, a small leaf or scale at the base of a flower stem.
caducous, falling off early.
calyx, cup or outer case of a flower: its parts are sepals.
corolla, the inner part of a flower, next the calyx, usually brightly coloured: its parts are petals.

deciduous, falling off in autumn.

drupe, a nut (or stone) enclosed in pulp.

elliptical, of oval (or egg) shape, with both ends alike.

floret, one of the small flowers composing a composite flower.

gland, a cell containing a secretion.

habitat, the natural locality of a plant.

herbaceous, having a succulent (or juicy) stem.

hispid, bristly.

imbricated, overlapping (like tiles on a roof) : Lat. *imbrex*, a tile.

indigenous, native, or growing wild.

involucre, a whorl or set of bracts ; an umbel.

legume, a longish pod without a partition.

lobe, a division of a leaf.

ovary, the lower part of the pistil producing the embryo seed.

ovules, the embryo seed.

palmate, divided into five (or more) lobes.

papilionaceous, butterfly-shaped : Lat. *papilio*, a butterfly.

parasitic, growing on another plant.

peduncle, the stalk of a flower.

perianth, calyx and corolla combined so as to be indistinguishable.

persistent, not falling off early (not caducous).

petals, the parts that make up the corolla ; the inner (coloured) leaves of a flower.

pistil, the fertile organ of a plant.

pollen, the fertilizing powder, contained in the anther.

scion, a creeping shoot.

sepals, the leaves of the calyx (usually green).

sessile, having no stalk : Lat. *sessum*, to sit.

stamen, the organ of a flower which produces pollen.

tap-root, the main root of a plant, growing downwards.

tendrils, a twisted slender stalk bearing neither leaf nor flower : by it the plant attaches itself for support.

umbelliferous, having flower stalks radiating from a common centre.

EXERCISES

1. Give instances of plants which have bracts, tendrils, pistils, &c.
2. What flowers are composite, sessile, umbelliferous, &c. ?
3. What flowers have imbricated petals, caducous sepals, &c. ?
4. What plants are parasitic, indigenous (British Islands), leguminous, &c. ?

EPILOGUE

SIT thee by the ingle, when
 The sear faggot blazes bright,
 Spirit of a winter's night;
 When the soundless earth is muffled,
 And the cakèd snow is shuffled
 From the ploughboy's heavy shoon;
 When the Night doth meet the Noon
 In a dark conspiracy
 To banish Even from her sky.

Sit thee there, and send abroad,
 With a mind self-overawed,
 Fancy, high-commission'd:—send her!
 She has vassals to attend her:
 She will bring, in spite of frost,
 Beauties that the earth hath lost;
 She will bring thee, all together,
 All delights of summer weather;
 All the buds and bells of May,
 From dewy sward or thorny spray;

20

All the heapèd Autumn's wealth,
With a still, mysterious stealth:
She will mix these pleasures up
Like three fit wines in a cup,
And thou shalt quaff it!

Thou shalt hear

30

Distant harvest-carols clear;
Rustle of the reapèd corn;
Sweet birds antheming the morn:
And, in the same moment—hark!
'Tis the early April lark,
Or the rooks, with busy caw,
Foraging for sticks and straw.

Thou shalt, at one glance, behold
The daisy and the marigold;
White-plumed lilies and the first
Hedge-grown primrose that hath burst;
Shaded hyacinth—alway
Sapphire queen of the mid-May—
And every leaf, and every flower
Pearled with the selfsame shower.

40

Thou shalt see the field-mouse peep
Meagre from its cellèd sleep;
And the snake, all winter-thin,
Cast on sunny bank its skin;
Freckled nest-eggs thou shalt see
Hatching in the hawthorn-tree,
When the hen-bird's wing doth rest
Quiet on her mossy nest;

Then the hurry and alarm
When the bee-hive casts its swarm;
Acorns ripe down-pattering,
While the autumn breezes sing.

50

JOHN KEATS.

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